STRESS ANALYSIS - PAGE 1

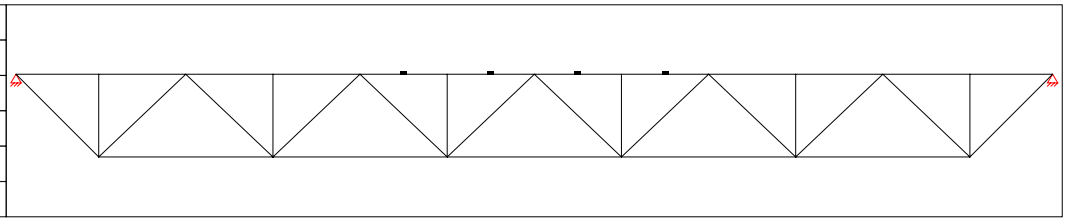
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 40G6N12K	G01

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
40-0	39-8	40.00	38.02	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	3-4	3-4
TC Panel	3-4	3-4
First Half	3-4	3-4
First Diag.	6-8	6-8
Depth	40.00	40.00



Loads

Point Load at Diagonals (lbs)	12,000.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
40.00	80.00	36,000.00	36,000.00	9,000.00	105,734.84	112,047.38

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	29,984.50	0.00	0.00	42,415.46	0.00	53.75	0-2
W3	0.00	29,984.50	61,547.15	0.00	0.00	43,545.38	55.19	3-4
W4	0.00	80,484.73	61,547.15	0.00	26,127.23	0.00	55.19	6-8
W5	0.00	80,484.73	99,422.31	0.00	0.00	26,127.23	55.19	10-0
W6	0.00	105,734.84	99,422.31	0.00	13,063.62	0.00	55.19	13-4
W7	0.00	105,734.84	112,047.38	0.00	0.00	13,063.62	55.19	16-8
W7	0.00	105,734.84	112,047.38	0.00	0.00	13,063.62	55.19	20-0
W6	0.00	105,734.84	99,422.31	0.00	13,063.62	0.00	55.19	23-4
W5	0.00	80,484.73	99,422.31	0.00	0.00	26,127.23	55.19	26-8
W4	0.00	80,484.73	61,547.14	0.00	26,127.23	0.00	55.19	30-0
W3	0.00	29,984.50	61,547.14	0.00	0.00	43,545.38	55.19	33-4
W2	0.00	29,984.50	0.00	0.00	42,415.45	0.00	53.75	36-8

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V1	End Panel	0.00	2,114.70	38.02
V2	Interior	0.00	2,114.70	38.02

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 40G6N12K	G01

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	2.0867	1.0826	0.6900	1.8419	0.9902	2.4454	0.9854	3E = 3 1/2 x 3 1/2 x .312
BC	2.0867	1.0826	0.6900	1.8419	0.9902	2.4454	0.9854	3E = 3 1/2 x 3 1/2 x .312

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	3,021.14	2,712.59	2,712.59	26-1 1/8	36-10

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	38.00	40.00	40.00	40.00	38.00
Bending Load	0.00	0.00	0.00	0.00	0.00
Axial Load	29,984.50	29,984.50	105,734.84	29,984.50	29,984.50
fa	7,184.82	7,184.82	25,335.95	7,184.82	7,184.82
Maximum K L/r	55.07	57.97	43.43	57.97	55.07
Fa	23,759.19	23,204.79	25,805.63	23,204.79	23,759.19
F'e	121,194.36	109,377.91	109,377.91	109,377.91	121,194.36
Cm	0.9822	0.9803	0.9073	0.9803	0.9822
Panel Point Moment	0.00	0.00	0.00	0.00	0.00
Mid Panel Moment	0.00	0.00	0.00	0.00	0.00
Panel Point fb	0.00	0.00	0.00	0.00	0.00
Mid Panel fb	0.00	0.00	0.00	0.00	0.00
Fillers	0	0	4	0	0
Panel Point Stress	7,184.82	7,184.82	25,335.95	7,184.82	7,184.82
Mid Panel Stress	0.3024	0.3096	0.9818	0.3096	0.3024

Gap Between Chords:	1.00
Min Weld Len 2X:	0.7595
Max Load Fillers TC:	107,694.95
Max Load no Fillers TC:	96,840.85
TC OAL/Ryy:	258.4302
BC Stress:	26,848.55
BC L/Rz:	115.9464
TC Shear Stress:	14,198.25
BC Shear Stress:	14,198.25

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	42,415.46	42,781.86	0.00	24,577.68	15.3 x 0.187	2	25 = 2 x 2 x .187
W3	0.00	65,826.00	43,545.38	45,213.38	15.6 x 0.188	2	2E = 2 1/2 x 2 1/2 x .230
W4	26,127.23	26,225.28	0.00	6,635.63	9.4 x 0.188	1	28 = 2 x 2 x .232
W5	0.00	52,450.56	26,127.23	28,902.48	9.4 x 0.188	2	28 = 2 x 2 x .232
W6	13,063.62	14,531.25	0.00	3,785.64	7.0 x 0.125	1	20 = 2 x 2 x .125
W7	0.00	29,062.50	13,063.62	15,097.80	7.0 x 0.125	2	20 = 2 x 2 x .125
W7	0.00	29,062.50	13,063.62	15,097.80	7.0 x 0.125	2	20 = 2 x 2 x .125
W6	13,063.62	14,531.25	0.00	3,785.64	7.0 x 0.125	1	20 = 2 x 2 x .125
W5	0.00	52,450.56	26,127.23	28,902.48	9.4 x 0.188	2	28 = 2 x 2 x .232
W4	26,127.23	26,225.28	0.00	6,635.63	9.4 x 0.188	1	28 = 2 x 2 x .232
W3	0.00	65,826.00	43,545.38	45,213.38	15.6 x 0.188	2	2E = 2 1/2 x 2 1/2 x .230
W2	42,415.45	42,781.86	0.00	24,577.68	15.3 x 0.187	2	25 = 2 x 2 x .187
V1	0.00	9,453.57	2,114.70	2,899.08	2.0 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
V2	0.00	9,453.57	2,114.70	2,899.08	2.0 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109

STRESS ANALYSIS - PAGE 1

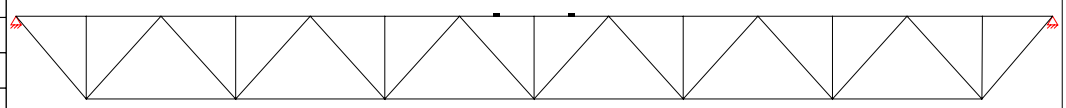
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 40G7N12K	G02

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
40-0	39-8	40.00	37.99	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	2-10 1/4	2-10 1/4
TC Panel	2-10 1/4	2-10 1/4
First Half	2-10 3/8	2-10 3/8
First Diag.	5-8 5/8	5-8 5/8
Depth	40.00	40.00



Loads

Point Load at Diagonals (lbs)	12,000.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
34.25	68.63	42,018.90	41,981.09	10,504.72	128,181.27	128,198.31

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	30,580.54	0.00	0.00	47,249.66	0.00	49.83	0-2
W3	0.00	30,580.54	63,176.09	0.00	0.00	48,578.08	51.23	2-10 1/4
W4	0.00	84,833.12	63,176.09	0.00	32,340.92	0.00	51.15	5-8 5/8
W5	0.00	84,833.12	106,490.14	0.00	0.00	32,340.92	51.15	8-6 7/8
W6	0.00	117,327.18	106,490.14	0.00	16,183.19	0.00	51.15	11-5 1/8
W7	0.00	117,327.18	128,164.21	0.00	0.00	16,183.19	51.15	14-3 3/8
W8	0.00	128,181.27	128,164.21	0.00	14,144.37	0.00	51.15	17-1 5/8
W8	0.00	128,181.27	128,198.31	0.00	0.00	14,144.37	51.15	19-11 7/8
W7	0.00	117,395.38	128,198.31	0.00	0.00	16,132.26	51.15	22-10 1/8
W6	0.00	117,395.38	106,592.44	0.00	16,132.27	0.00	51.15	25-8 3/8
W5	0.00	84,969.51	106,592.44	0.00	0.00	32,290.00	51.15	28-6 5/8
W4	0.00	84,969.51	63,346.57	0.00	32,290.00	0.00	51.15	31-4 7/8
W3	0.00	30,785.25	63,346.57	0.00	0.00	48,527.09	51.23	34-3 1/8
W2	0.00	30,785.25	0.00	0.00	47,353.67	0.00	49.99	37-1 1/2

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V1	End Panel	0.00	2,563.63	37.99
V2	Interior	0.00	2,563.63	37.99

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 40G7N12K	G02

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	2.4844	1.0739	0.6869	1.8553	1.0130	2.8651	1.0000	3H = 3 1/2 x 3 1/2 x .375
BC	2.2897	1.0781	0.6883	1.8487	1.0018	2.6613	1.0000	3F = 3 1/2 x 3 1/2 x .344

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	3,443.98	3,092.25	3,092.25	26-3 3/8	36-11 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	32.25	34.38	34.25	34.63	32.25
Bending Load	0.00	0.00	0.00	0.00	0.00
Axial Load	30,580.54	30,580.54	128,181.27	30,785.25	30,785.25
fa	6,154.58	6,154.58	25,797.49	6,195.77	6,195.77
Maximum K L/r	46.95	50.04	36.92	50.41	46.95
Fa	25,534.31	24,980.20	27,154.17	24,913.51	25,534.31
F'e	165,580.20	145,741.22	146,806.98	143,644.25	165,580.20
Cm	0.9888	0.9873	0.9297	0.9871	0.9888
Panel Point Moment	0.00	0.00	0.00	0.00	0.00
Mid Panel Moment	0.00	0.00	0.00	0.00	0.00
Panel Point fb	0.00	0.00	0.00	0.00	0.00
Mid Panel fb	0.00	0.00	0.00	0.00	0.00
Fillers	0	0	2	0	0
Panel Point Stress	6,154.58	6,154.58	25,797.49	6,195.77	6,195.77
Mid Panel Stress	0.2410	0.2464	0.9500	0.2487	0.2426

Gap Between Chords:	1.00
Min Weld Len 2X:	0.9208
Max Load Fillers TC:	134,922.28
Max Load no Fillers TC:	124,285.47
TC OAL/Ryy:	256.5557
BC Stress:	27,995.01
BC L/Rz:	99.6977
TC Shear Stress:	14,062.32
BC Shear Stress:	15,326.15

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	47,249.66	52,450.56	0.00	32,265.80	13.7 x 0.232	2	28 = 2 x 2 x .232
W3	0.00	71,250.00	48,578.08	51,527.15	13.1 x 0.250	2	2F = 2 1/2 x 2 1/2 x .250
W4	32,340.92	33,093.06	0.00	19,106.67	15.2 x 0.143	2	21 = 2 x 2 x .143
W5	0.00	56,250.00	32,340.92	33,579.77	11.6 x 0.188	2	29 = 2 x 2 x .250
W6	16,183.19	16,546.53	0.00	4,988.40	7.6 x 0.143	1	21 = 2 x 2 x .143
W7	0.00	33,093.06	16,183.19	19,106.67	7.6 x 0.143	2	21 = 2 x 2 x .143
W8	14,144.37	14,531.25	0.00	4,407.26	7.6 x 0.125	1	20 = 2 x 2 x .125
W8	0.00	29,062.50	14,144.37	16,141.01	7.6 x 0.125	2	20 = 2 x 2 x .125
W7	0.00	29,062.50	16,132.26	16,141.01	8.7 x 0.125	2	20 = 2 x 2 x .125
W6	16,132.27	16,546.53	0.00	4,988.40	7.6 x 0.143	1	21 = 2 x 2 x .143
W5	0.00	56,250.00	32,290.00	33,579.77	11.6 x 0.188	2	29 = 2 x 2 x .250
W4	32,290.00	33,093.06	0.00	19,106.67	15.2 x 0.143	2	21 = 2 x 2 x .143
W3	0.00	71,250.00	48,527.09	51,527.15	13.1 x 0.250	2	2F = 2 1/2 x 2 1/2 x .250
W2	47,353.67	52,450.56	0.00	32,163.76	13.7 x 0.232	2	28 = 2 x 2 x .232
V1	0.00	9,453.57	2,563.63	2,904.33	2.0 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
V2	0.00	9,453.57	2,563.63	2,904.33	2.0 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109

STRESS ANALYSIS - PAGE 1

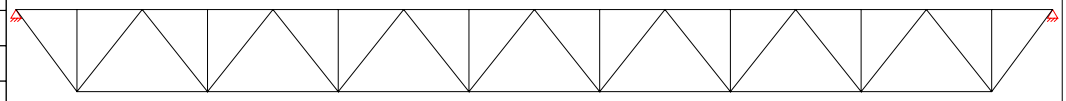
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 40G8N12K	G03

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
40-0	39-8	40.00	37.72	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	2-6	2-6
TC Panel	2-6	2-6
First Half	2-6	2-6
First Diag.	5-0	5-0
Depth	40.00	40.00



Loads

Point Load at Diagonals (lbs)	12,000.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
30.00	60.00	48,000.00	48,000.00	12,000.00	145,692.23	150,463.83

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	31,174.33	0.00	0.00	52,305.25	0.00	46.98	0-2
W3	0.00	31,174.33	64,575.38	0.00	0.00	53,662.20	48.20	2-6
W4	0.00	88,433.28	64,575.38	0.00	38,330.14	0.00	48.20	5-0
W5	0.00	88,433.28	112,291.17	0.00	0.00	38,330.14	48.20	7-6
W6	0.00	126,605.93	112,291.17	0.00	22,998.08	0.00	48.20	10-0
W7	0.00	126,605.93	140,920.66	0.00	0.00	22,998.08	48.20	12-6
W8	0.00	145,692.23	140,920.66	0.00	15,332.05	0.00	48.20	15-0
W9	0.00	145,692.23	150,463.83	0.00	0.00	15,332.05	48.20	17-6
W9	0.00	145,692.23	150,463.83	0.00	0.00	15,332.05	48.20	20-0
W8	0.00	145,692.23	140,920.66	0.00	15,332.05	0.00	48.20	22-6
W7	0.00	126,605.92	140,920.66	0.00	0.00	22,998.08	48.20	25-0
W6	0.00	126,605.92	112,291.17	0.00	22,998.08	0.00	48.20	27-6
W5	0.00	88,433.27	112,291.17	0.00	0.00	38,330.14	48.20	30-0
W4	0.00	88,433.27	64,575.38	0.00	38,330.14	0.00	48.20	32-6
W3	0.00	31,174.32	64,575.38	0.00	0.00	53,662.19	48.20	35-0
W2	0.00	31,174.32	0.00	0.00	52,305.24	0.00	46.98	37-6

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V1	End Panel	0.00	2,913.85	37.72
V2	Interior	0.00	2,913.85	37.72

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 40G8N12K	G03

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	2.8594	1.2346	0.7876	2.0514	1.1383	4.3586	1.0000	42 = 4 x 4 x .375
BC	2.8594	1.2346	0.7876	2.0514	1.1383	4.3586	1.0000	42 = 4 x 4 x .375

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	4,077.76	3,661.30	3,661.30	29-0 3/4	41-0 3/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	28.00	30.00	30.00	30.00	28.00
Bending Load	0.00	0.00	0.00	0.00	0.00
Axial Load	31,174.33	31,174.33	145,692.23	31,174.32	31,174.32
fa	5,451.25	5,451.25	25,476.24	5,451.25	5,451.25
Maximum K L/r	35.55	38.09	29.25	38.09	35.55
Fa	27,351.72	26,980.26	28,181.08	26,980.26	27,351.72
F'e	290,344.31	252,922.17	252,922.17	252,922.17	290,344.31
Cm	0.9944	0.9935	0.9597	0.9935	0.9944
Panel Point Moment	0.00	0.00	0.00	0.00	0.00
Mid Panel Moment	0.00	0.00	0.00	0.00	0.00
Panel Point fb	0.00	0.00	0.00	0.00	0.00
Mid Panel fb	0.00	0.00	0.00	0.00	0.00
Fillers	0	0	0	0	0
Panel Point Stress	5,451.25	5,451.25	25,476.24	5,451.25	5,451.25
Mid Panel Stress	0.1993	0.2020	0.9040	0.2020	0.1993

Gap Between Chords:	1.00
Min Weld Len 2X:	1.0466
Max Load Fillers TC:	161,160.55
Max Load no Fillers TC:	154,293.38
TC OAL/Ryy:	232.0318
BC Stress:	26,310.62
BC L/Rz:	76.1835
TC Shear Stress:	14,262.86
BC Shear Stress:	14,262.86

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	52,305.25	52,450.56	0.00	34,055.59	15.2 x 0.232	2	28 = 2 x 2 x .232
W3	0.00	78,628.26	53,662.20	60,588.39	15.9 x 0.227	2	31 = 3 x 3 x .227
W4	38,330.14	40,381.44	0.00	25,638.57	14.7 x 0.176	2	24 = 2 x 2 x .176
W5	0.00	60,903.36	38,330.14	44,804.58	13.8 x 0.188	2	2C = 2 1/2 x 2 1/2 x .212
W6	22,998.08	23,339.25	0.00	7,787.32	8.3 x 0.188	1	26 = 2 x 2 x .205
W7	0.00	37,525.86	22,998.08	23,483.75	9.5 x 0.163	2	23 = 2 x 2 x .163
W8	15,332.05	16,546.53	0.00	5,617.33	7.2 x 0.143	1	21 = 2 x 2 x .143
W9	0.00	29,062.50	15,332.05	16,893.37	8.3 x 0.125	2	20 = 2 x 2 x .125
W9	0.00	29,062.50	15,332.05	16,893.37	8.3 x 0.125	2	20 = 2 x 2 x .125
W8	15,332.05	16,546.53	0.00	5,617.33	7.2 x 0.143	1	21 = 2 x 2 x .143
W7	0.00	37,525.86	22,998.08	23,483.75	9.5 x 0.163	2	23 = 2 x 2 x .163
W6	22,998.08	23,339.25	0.00	7,787.32	8.3 x 0.188	1	26 = 2 x 2 x .205
W5	0.00	60,903.36	38,330.14	44,804.58	13.8 x 0.188	2	2C = 2 1/2 x 2 1/2 x .212
W4	38,330.14	40,381.44	0.00	25,638.57	14.7 x 0.176	2	24 = 2 x 2 x .176
W3	0.00	78,628.26	53,662.19	60,588.39	15.9 x 0.227	2	31 = 3 x 3 x .227
W2	52,305.24	52,450.56	0.00	34,055.59	15.2 x 0.232	2	28 = 2 x 2 x .232
V1	0.00	9,453.57	2,913.85	2,944.79	2.0 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
V2	0.00	9,453.57	2,913.85	2,944.79	2.0 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109

STRESS ANALYSIS - PAGE 1

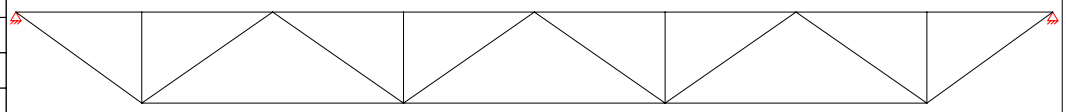
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 40G4N56K	G04

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
35-0	34-8	40.00	36.54	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	4-4 1/2	4-4 1/2
TC Panel	4-4 1/2	4-4 1/2
First Half	4-4 1/2	4-4 1/2
First Diag.	8-9	8-9
Depth	40.00	40.00



Loads

Point Load at Diagonals (lbs)	56,000.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
52.50	105.00	111,999.99	112,000.00	28,000.00	277,009.88	317,239.50

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	116,091.27	0.00	0.00	143,294.03	0.00	62.33	0-2
W3	0.00	116,091.27	236,780.20	0.00	0.00	147,043.61	63.96	4-4 1/2
W4	0.00	277,009.88	236,780.20	0.00	49,014.54	0.00	63.96	8-9
W5	0.00	277,009.88	317,239.50	0.00	0.00	49,014.54	63.96	13-1 1/2
W5	0.00	277,009.88	317,239.50	0.00	0.00	49,014.54	63.96	17-6
W4	0.00	277,009.88	236,780.20	0.00	49,014.54	0.00	63.96	21-10 1/2
W3	0.00	116,091.27	236,780.20	0.00	0.00	147,043.59	63.96	26-3
W2	0.00	116,091.27	0.00	0.00	143,294.05	0.00	62.33	30-7 1/2

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V1	End Panel	0.02	5,540.20	36.54
V2	Interior	0.00	5,540.20	36.54

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 40G4N56K	G04

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	8.4375	1.8267	1.1734	2.9176	1.7750	28.1549	1.0000	67 = 6 x 6 x .750
BC	5.7500	1.8607	1.1847	2.8698	1.6848	19.9078	0.9607	63 = 6 x 6 x .500

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	9,179.68	12,347.62	12,347.62	41-4	57-4 3/4

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	50.50	52.50	52.50	52.50	50.50
Bending Load	0.00	0.00	0.00	0.00	0.00
Axial Load	116,091.26	116,091.26	277,009.88	116,091.27	116,091.27
fa	6,879.48	6,879.48	16,415.40	6,879.48	6,879.48
Maximum K L/r	43.04	44.74	35.99	44.74	43.04
Fa	26,200.26	25,915.21	27,289.43	25,915.21	26,200.26
F'e	195,392.70	180,789.20	180,789.20	180,789.20	195,392.70
Cm	0.9894	0.9886	0.9637	0.9886	0.9894
Panel Point Moment	0.00	0.00	0.00	0.00	0.00
Mid Panel Moment	0.00	0.00	0.00	0.00	0.00
Panel Point fb	0.00	0.00	0.00	0.00	0.00
Mid Panel fb	0.00	0.00	0.00	0.00	0.00
Fillers	0	0	0	0	0
Panel Point Stress	6,879.48	6,879.48	16,415.40	6,879.48	6,879.48
Mid Panel Stress	0.2626	0.2655	0.6015	0.2655	0.2626

Gap Between Chords:	1.00
Min Weld Len 2X:	1.9898
Max Load Fillers TC:	460,509.06
Max Load no Fillers TC:	437,319.16
TC OAL/Ryy:	142.5820
BC Stress:	27,586.04
BC L/Rz:	88.6263
TC Shear Stress:	9,994.93
BC Shear Stress:	14,951.08

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	143,294.03	143,919.38	0.00	113,302.52	30.9 x 0.312	2	41 = 4 x 4 x .312
W3	0.00	198,301.86	147,043.61	162,522.19	22.7 x 0.437	2	44 = 4 x 4 x .437
W4	49,014.54	52,450.56	0.00	23,553.08	17.6 x 0.188	2	28 = 2 x 2 x .232
W5	0.00	78,628.26	49,014.54	52,841.43	17.6 x 0.188	2	31 = 3 x 3 x .227
W5	0.00	78,628.26	49,014.54	52,841.43	17.6 x 0.188	2	31 = 3 x 3 x .227
W4	49,014.54	52,450.56	0.00	23,553.08	17.6 x 0.188	2	28 = 2 x 2 x .232
W3	0.00	198,301.86	147,043.59	162,522.19	22.7 x 0.437	2	44 = 4 x 4 x .437
W2	143,294.05	143,919.38	0.00	113,302.52	30.9 x 0.312	2	41 = 4 x 4 x .312
V1	0.02	14,531.25	5,540.20	7,240.99	3.0 x 0.125	1	20 = 2 x 2 x .125
V2	0.00	14,531.25	5,540.20	7,240.99	3.0 x 0.125	1	20 = 2 x 2 x .125

STRESS ANALYSIS - PAGE 1

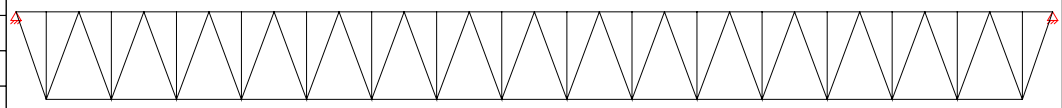
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 84G16N12K	G05

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
80-0	79-8	84.00	80.63	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	2-6	2-6
TC Panel	2-6	2-6
First Half	2-6	2-6
First Diag.	5-0	5-0
Depth	84.00	84.00



Loads

Point Load at Diagonals (lbs)	12,000.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
30.00	60.00	95,999.99	96,000.00	24,000.00	281,283.38	283,515.78

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	31,253.71	0.00	0.00	95,272.21	0.00	85.35	0-2
W3	0.00	31,253.71	64,739.82	0.00	0.00	96,027.70	86.03	2-6
W4	0.00	93,761.13	64,739.82	0.00	83,224.02	0.00	86.03	5-0
W5	0.00	93,761.13	122,782.41	0.00	0.00	83,224.02	86.03	7-6
W6	0.00	147,338.89	122,782.41	0.00	70,420.30	0.00	86.03	10-0
W7	0.00	147,338.89	171,895.36	0.00	0.00	70,420.33	86.03	12-6
W8	0.00	191,987.06	171,895.36	0.00	57,616.62	0.00	86.03	15-0
W9	0.00	191,987.06	212,078.72	0.00	0.00	57,616.62	86.03	17-6
W10	0.00	227,705.59	212,078.72	0.00	44,812.93	0.00	86.03	20-0
W11	0.00	227,705.59	243,332.44	0.00	0.00	44,812.93	86.03	22-6
W12	0.00	254,494.47	243,332.44	0.00	32,009.23	0.00	86.03	25-0
W13	0.00	254,494.47	265,656.50	0.00	0.00	32,009.23	86.03	27-6
W14	0.00	272,353.72	265,656.50	0.00	25,607.39	0.00	86.03	30-0
W15	0.00	272,353.72	279,050.91	0.00	0.00	25,607.39	86.03	32-6
W16	0.00	281,283.38	279,050.91	0.00	25,607.39	0.00	86.03	35-0
W17	0.00	281,283.38	283,515.78	0.00	0.00	25,607.39	86.03	37-6
W17	0.00	281,283.38	283,515.78	0.00	0.00	25,607.39	86.03	40-0
W16	0.00	281,283.38	279,050.97	0.00	25,607.39	0.00	86.03	42-6
W15	0.00	272,353.72	279,050.97	0.00	0.00	25,607.39	86.03	45-0
W14	0.00	272,353.72	265,656.47	0.00	25,607.39	0.00	86.03	47-6
W13	0.00	254,494.45	265,656.47	0.00	0.00	32,009.23	86.03	50-0
W12	0.00	254,494.45	243,332.44	0.00	32,009.23	0.00	86.03	52-6
W11	0.00	227,705.56	243,332.44	0.00	0.00	44,812.93	86.03	55-0
W10	0.00	227,705.56	212,078.72	0.00	44,812.93	0.00	86.03	57-6
W9	0.00	191,987.05	212,078.72	0.00	0.00	57,616.62	86.03	60-0
W8	0.00	191,987.05	171,895.38	0.00	57,616.61	0.00	86.03	62-6
W7	0.00	147,338.88	171,895.38	0.00	0.00	70,420.30	86.03	65-0
W6	0.00	147,338.88	122,782.41	0.00	70,420.30	0.00	86.03	67-6
W5	0.00	93,761.11	122,782.41	0.00	0.00	83,223.99	86.03	70-0
W4	0.00	93,761.11	64,739.82	0.00	83,224.00	0.00	86.03	72-6
W3	0.00	31,253.71	64,739.82	0.00	0.00	96,027.70	86.03	75-0
W2	0.00	31,253.71	0.00	0.00	95,272.21	0.00	85.35	77-6

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V1	End Panel	0.00	5,625.67	80.63
V2	Interior	0.01	5,625.67	80.63

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 84G16N12K	G05

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	5.7500	1.8607	1.1847	2.8698	1.6848	19.9078	0.9607	63 = 6 x 6 x .500
BC	5.7500	1.8607	1.1847	2.8698	1.6848	19.9078	0.9607	63 = 6 x 6 x .500

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	37,422.10	4,147.53	4,147.53	40-7 7/8	57-4 3/4

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	28.00	30.00	30.00	30.00	28.00
Bending Load	0.00	0.00	0.00	0.00	0.00
Axial Load	31,253.71	31,253.71	281,283.38	31,253.71	31,253.71
fa	2,717.71	2,717.71	24,459.42	2,717.71	2,717.71
Maximum K L/r	23.63	25.32	20.91	25.32	23.63
Fa	27,712.33	27,551.92	27,949.70	27,551.92	27,712.33
F'e	659,464.25	574,466.63	574,466.69	574,466.63	659,464.25
Cm	0.9988	0.9986	0.9830	0.9986	0.9988
Panel Point Moment	0.00	0.00	0.00	0.00	0.00
Mid Panel Moment	0.00	0.00	0.00	0.00	0.00
Panel Point fb	0.00	0.00	0.00	0.00	0.00
Mid Panel fb	0.00	0.00	0.00	0.00	0.00
Fillers	0	0	0	0	0
Panel Point Stress	2,717.71	2,717.71	24,459.42	2,717.71	2,717.71
Mid Panel Stress	0.0981	0.0986	0.8751	0.0986	0.0981

Gap Between Chords:	1.00
Min Weld Len 2X:	2.0205
Max Load Fillers TC:	321,421.56
Max Load no Fillers TC:	316,847.13
TC OAL/Ryy:	333.1292
BC Stress:	24,653.54
BC L/Rz:	50.6436
TC Shear Stress:	15,061.42
BC Shear Stress:	15,061.42

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	95,272.21	96,422.34	0.00	51,807.59	22.8 x 0.281	2	35 = 3 x 3 x .281
W3	0.00	143,919.38	96,027.70	96,994.84	20.7 x 0.312	2	41 = 4 x 4 x .312
W4	83,224.02	86,250.00	0.00	45,445.58	22.4 x 0.250	2	33 = 3 x 3 x .250
W5	0.00	137,379.84	83,224.02	86,242.87	16.3 x 0.344	2	3F = 3 1/2 x 3 1/2 x .344
W6	70,420.30	71,250.00	0.00	28,567.14	25.3 x 0.188	2	2F = 2 1/2 x 2 1/2 x .250
W7	0.00	125,199.37	70,420.33	78,271.57	25.3 x 0.188	2	3E = 3 1/2 x 3 1/2 x .312
W8	57,616.62	60,903.36	0.00	24,630.93	20.7 x 0.188	2	2C = 2 1/2 x 2 1/2 x .212
W9	0.00	125,199.37	57,616.62	78,271.57	20.7 x 0.188	2	3E = 3 1/2 x 3 1/2 x .312
W10	44,812.93	46,678.50	0.00	11,971.88	16.1 x 0.188	2	26 = 2 x 2 x .205
W11	0.00	86,250.00	44,812.93	45,445.58	16.1 x 0.188	2	33 = 3 x 3 x .250
W12	32,009.23	33,093.06	0.00	8,729.59	15.1 x 0.143	2	21 = 2 x 2 x .143
W13	0.00	78,628.26	32,009.23	40,904.36	11.5 x 0.188	2	31 = 3 x 3 x .227
W14	25,607.39	29,062.50	0.00	7,730.89	13.8 x 0.125	2	20 = 2 x 2 x .125
W15	0.00	65,826.00	25,607.39	26,556.33	9.2 x 0.188	2	2E = 2 1/2 x 2 1/2 x .230
W16	25,607.39	29,062.50	0.00	7,730.89	13.8 x 0.125	2	20 = 2 x 2 x .125
W17	0.00	65,826.00	25,607.39	26,556.33	9.2 x 0.188	2	2E = 2 1/2 x 2 1/2 x .230
W17	0.00	65,826.00	25,607.39	26,556.33	9.2 x 0.188	2	2E = 2 1/2 x 2 1/2 x .230
W16	25,607.39	29,062.50	0.00	7,730.89	13.8 x 0.125	2	20 = 2 x 2 x .125
W15	0.00	65,826.00	25,607.39	26,556.33	9.2 x 0.188	2	2E = 2 1/2 x 2 1/2 x .230
W14	25,607.39	29,062.50	0.00	7,730.89	13.8 x 0.125	2	20 = 2 x 2 x .125
W13	0.00	78,628.26	32,009.23	40,904.36	11.5 x 0.188	2	31 = 3 x 3 x .227
W12	32,009.23	33,093.06	0.00	8,729.59	15.1 x 0.143	2	21 = 2 x 2 x .143
W11	0.00	86,250.00	44,812.93	45,445.58	16.1 x 0.188	2	33 = 3 x 3 x .250
W10	44,812.93	46,678.50	0.00	11,971.88	16.1 x 0.188	2	26 = 2 x 2 x .205
W9	0.00	125,199.37	57,616.62	78,271.57	20.7 x 0.188	2	3E = 3 1/2 x 3 1/2 x .312
W8	57,616.61	60,903.36	0.00	24,630.93	20.7 x 0.188	2	2C = 2 1/2 x 2 1/2 x .212
W7	0.00	125,199.37	70,420.30	78,271.57	25.3 x 0.188	2	3E = 3 1/2 x 3 1/2 x .312

STRESS ANALYSIS - PAGE 1

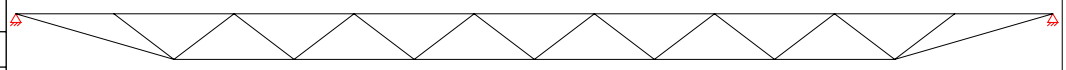
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 8K1	J01

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
14-0	13-8	8.00	7.23	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	2-3	2-3
TC Panel	1-5 1/2	1-5 1/2
First Half	0-9 1/2	0-9 1/2
First Diag.	3-0 1/2	3-0 1/2
Depth	8.00	8.00



Loads

Uniform Load in TC (plf)	324.00	Live Load (plf)	179.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
19.00	19.00	2,214.00	2,214.00	553.50	12,393.38	12,393.38

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	6,935.81	0.00	0.00	7,219.73	0.00	26.02	0-2
V1S	0.00	6,323.50	0.00	0.00	0.00	831.28	11.94	1-5 1/2
W3	0.00	6,323.50	8,346.79	0.00	0.00	2,542.09	11.94	2-3
W4	0.00	9,695.65	8,346.79	0.00	1,694.73	0.00	11.94	3-0 1/2
W5	0.00	9,695.65	11,044.52	0.00	0.00	1,694.73	11.94	3-10
W6	0.00	11,718.95	11,044.52	0.00	914.26	0.00	11.94	4-7 1/2
W7	0.00	11,718.95	12,393.38	0.00	0.00	914.26	11.94	5-5
W8	0.00	12,393.38	12,393.38	0.00	914.26	914.26	11.94	6-2 1/2

* Symmetrical Joist

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 8K1	J01

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.3151	0.4675	0.2972	0.8132	0.4154	0.0689	0.9050	1C = 1 1/2 x 1 1/2 x .109
BC	0.2969	0.3847	0.2457	0.7200	0.3586	0.0439	1.0000	18 = 1 1/4 x 1 1/4 x .125

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	16.08	352.94	352.94	9-9 7/8	14-4 3/4

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	15.50	19.00	19.00	19.00	15.50
Bending Load	324.00	-	0.00	-	324.00
Axial Load	6,935.81	-	12,393.38	-	6,935.81
fa	11,005.06	-	19,664.60	-	11,005.06
Maximum K L/r	52.16	-	44.27	-	52.16
Fa	22,677.24	-	23,848.29	-	22,677.24
F'e	135,824.28	-	90,392.76	-	135,824.28
Cm	0.9757	-	0.9130	-	0.9757
Panel Point Moment	811.81	-	0.00	-	811.81
Mid Panel Moment	455.74	-	0.00	-	455.74
Panel Point fb	6393.59	-	0.00	-	6393.59
Mid Panel fb	1374.51	-	0.00	-	1374.51
Fillers	0	-	0	-	0
Panel Point Stress	17,398.65	-	19,664.60	-	17,398.65
Mid Panel Stress	0.5390	-	0.8246	-	0.5390

Gap Between Chords:	0.50
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	15,030.10
Max Load no Fillers TC:	13,055.51
TC OAL/Ryy:	201.6830
BC Stress:	20,873.06
BC L/Rz:	77.3209
TC Shear Stress:	8,237.95
BC Shear Stress:	8,675.73

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	7,219.73	8,283.50	0.00	3,155.72	2.6 x 0.185	1	R9 = round 5/8
V1S	0.00	5,890.49	831.28	4,143.06	2.0 x 0.028	1	R1 = round 1/2
W3	0.00	5,890.49	2,542.09	4,143.06	2.0 x 0.086	1	R1 = round 1/2
W4	1,694.73	5,890.49	0.00	4,143.06	2.0 x 0.057	1	R1 = round 1/2
W5	0.00	5,890.49	1,694.73	4,143.06	2.0 x 0.057	1	R1 = round 1/2
W6	914.26	5,890.49	0.00	4,143.06	2.0 x 0.031	1	R1 = round 1/2
W7	0.00	5,890.49	914.26	4,143.06	2.0 x 0.031	1	R1 = round 1/2
W8	914.26	5,890.49	914.26	4,143.06	2.0 x 0.031	1	R1 = round 1/2

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

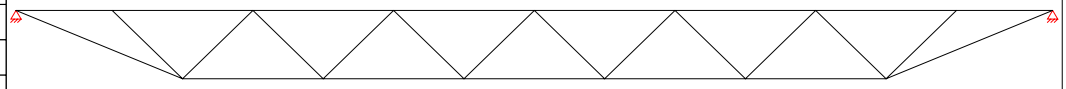
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 10K1	J02

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
12-0	11-8	10.00	9.23	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	2-0 1/2	2-0 1/2
TC Panel	1-3	1-3
First Half	0-9 1/2	0-9 1/2
First Diag.	2-10	2-10
Depth	10.00	10.00



Loads

Uniform Load in TC (plf)	550.00	Live Load (plf)	455.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
19.00	19.00	3,208.33	3,208.33	802.08	11,722.76	12,171.11

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	7,097.74	0.00	0.00	7,671.28	0.00	24.32	0-2
V1S	0.00	6,342.64	0.00	0.00	0.00	1,111.21	13.24	1-3
W3	0.00	6,342.64	8,584.36	0.00	0.00	3,124.90	13.24	2-0 1/2
W4	0.00	9,929.39	8,584.36	0.00	1,874.94	0.00	13.24	2-10
W5	0.00	9,929.39	11,274.42	0.00	0.00	1,874.94	13.24	3-7 1/2
W6	0.00	11,722.76	11,274.42	0.00	1,151.28	0.00	13.24	4-5
W7	0.00	11,722.76	12,171.11	0.00	0.00	1,151.28	13.24	5-2 1/2

* Symmetrical Joist

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 10K1	J02

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.3151	0.4675	0.2972	0.8132	0.4154	0.0689	0.9050	1C = 1 1/2 x 1 1/2 x .109
BC	0.2969	0.3847	0.2457	0.7200	0.3586	0.0439	1.0000	18 = 1 1/4 x 1 1/4 x .125

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	26.14	922.35	922.35	9-9 7/8	14-4 3/4

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	13.00	19.00	19.00	19.00	13.00
Bending Load	550.00	-	0.00	-	550.00
Axial Load	7,097.74	-	11,722.76	-	7,097.74
fa	11,262.00	-	18,600.53	-	11,262.00
Maximum K L/r	43.75	-	44.27	-	43.75
Fa	23,921.05	-	23,848.29	-	23,921.05
F'e	193,087.47	-	90,392.76	-	193,087.47
Cm	0.9825	-	0.9177	-	0.9825
Panel Point Moment	1197.93	-	0.00	-	1197.93
Mid Panel Moment	461.90	-	0.00	-	461.90
Panel Point fb	9434.55	-	0.00	-	9434.55
Mid Panel fb	1393.09	-	0.00	-	1393.09
Fillers	0	-	0	-	0
Panel Point Stress	20,696.55	-	18,600.53	-	20,696.55
Mid Panel Stress	0.5243	-	0.7800	-	0.5243

Gap Between Chords:	0.50
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	15,030.10
Max Load no Fillers TC:	13,055.51
TC OAL/Ryy:	172.1684
BC Stress:	20,498.71
BC L/Rz:	77.3209
TC Shear Stress:	10,532.07
BC Shear Stress:	11,066.31

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	7,671.28	8,283.50	0.00	3,089.14	2.8 x 0.185	1	R9 = round 5/8
V1S	0.00	5,890.49	1,111.21	3,548.71	2.0 x 0.037	1	R1 = round 1/2
W3	0.00	5,890.49	3,124.90	3,548.71	2.0 x 0.105	1	R1 = round 1/2
W4	1,874.94	5,890.49	0.00	3,548.71	2.0 x 0.063	1	R1 = round 1/2
W5	0.00	5,890.49	1,874.94	3,548.71	2.0 x 0.063	1	R1 = round 1/2
W6	1,151.28	5,890.49	0.00	3,548.71	2.0 x 0.039	1	R1 = round 1/2
W7	0.00	5,890.49	1,151.28	3,548.71	2.0 x 0.039	1	R1 = round 1/2

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

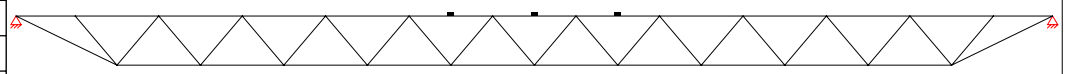
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 12K5	J03

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
20-0	19-8	12.00	11.15	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	2-1	2-1
TC Panel	1-3 1/2	1-3 1/2
First Half	0-9 1/2	0-9 1/2
First Diag.	2-10 1/2	2-10 1/2
Depth	12.00	12.00



Loads

Uniform Load in TC (plf)	409.00	Live Load (plf)	230.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
19.00	19.00	4,021.83	4,021.83	1,005.46	21,150.39	21,150.39

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	7,824.14	0.00	0.00	8,694.52	0.00	25.56	0-2
V1S	0.00	7,352.09	0.00	0.00	0.00	833.48	14.65	1-3 1/2
W3	0.00	7,352.09	10,111.75	0.00	0.00	4,254.39	14.65	2-1
W4	0.00	12,319.48	10,111.75	0.00	3,403.51	0.00	14.65	2-10 1/2
W5	0.00	12,319.48	14,527.20	0.00	0.00	3,403.51	14.65	3-8
W6	0.00	16,183.00	14,527.20	0.00	2,552.63	0.00	14.65	4-5 1/2
W7	0.00	16,183.00	17,838.80	0.00	0.00	2,552.63	14.65	5-3
W8	0.00	18,942.66	17,838.80	0.00	1,701.76	0.00	14.65	6-0 1/2
W9	0.00	18,942.66	20,046.53	0.00	0.00	1,701.76	14.65	6-10
W10	0.00	20,598.46	20,046.53	0.00	1,321.10	0.00	14.65	7-7 1/2
W11	0.00	20,598.46	21,150.39	0.00	0.00	1,321.10	14.65	8-5
W12	0.00	21,150.39	21,150.39	0.00	1,321.10	1,321.10	14.65	9-2 1/2

* Symmetrical Joist

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 12K5	J03

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.4437	0.4609	0.2946	0.8235	0.4324	0.0942	1.0000	1J = 1 1/2 x 1 1/2 x .156
BC	0.3594	0.4652	0.2962	0.8166	0.4212	0.0778	0.9607	1E = 1 1/2 x 1 1/2 x .125

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	49.51	364.73	364.73	9-11 3/8	16-4

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	13.50	19.00	19.00	19.00	13.50
Bending Load	409.00	-	0.00	-	409.00
Axial Load	7,824.14	-	21,150.39	-	7,824.14
fa	8,817.64	-	23,836.04	-	8,817.64
Maximum K L/r	45.83	-	43.72	-	45.83
Fa	25,729.86	-	26,087.54	-	25,729.86
F'e	174,041.42	-	87,864.41	-	174,041.42
Cm	0.9848	-	0.8915	-	0.9848
Panel Point Moment	913.43	-	0.00	-	913.43
Mid Panel Moment	386.91	-	0.00	-	386.91
Panel Point fb	5173.88	-	0.00	-	5173.88
Mid Panel fb	887.71	-	0.00	-	887.71
Fillers	0	-	3	-	0
Panel Point Stress	13,991.52	-	23,836.04	-	13,991.52
Mid Panel Stress	0.3734	-	0.9137	-	0.3734

Gap Between Chords:	0.50
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	23,148.21
Max Load no Fillers TC:	19,638.95
TC OAL/Ryy:	286.5888
BC Stress:	29,426.63
BC L/Rz:	64.1486
TC Shear Stress:	9,223.95
BC Shear Stress:	11,483.25

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	8,694.52	10,023.03	0.00	3,878.09	3.0 x 0.192	1	RB = round 11/16
V1S	0.00	7,455.15	833.48	4,445.38	2.0 x 0.028	1	R5 = round 9/16
W3	0.00	7,455.15	4,254.39	4,445.38	2.0 x 0.143	1	R5 = round 9/16
W4	3,403.51	7,455.15	0.00	4,445.38	2.0 x 0.115	1	R5 = round 9/16
W5	0.00	7,455.15	3,403.51	4,445.38	2.0 x 0.115	1	R5 = round 9/16
W6	2,552.63	5,890.49	0.00	3,061.67	2.0 x 0.086	1	R1 = round 1/2
W7	0.00	5,890.49	2,552.63	3,061.67	2.0 x 0.086	1	R1 = round 1/2
W8	1,701.76	5,890.49	0.00	3,061.67	2.0 x 0.057	1	R1 = round 1/2
W9	0.00	5,890.49	1,701.76	3,061.67	2.0 x 0.057	1	R1 = round 1/2
W10	1,321.10	5,890.49	0.00	3,061.67	2.0 x 0.044	1	R1 = round 1/2
W11	0.00	5,890.49	1,321.10	3,061.67	2.0 x 0.044	1	R1 = round 1/2
W12	1,321.10	5,890.49	1,321.10	3,061.67	2.0 x 0.044	1	R1 = round 1/2

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

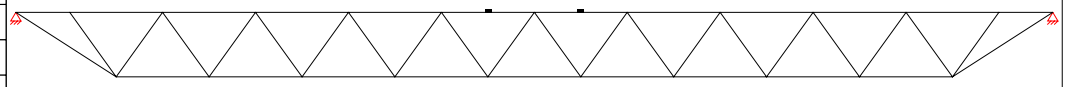
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 14K4	J04

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
18-0	17-8	14.00	13.16	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	1-10 1/2	1-10 1/2
TC Panel	1-1	1-1
First Half	0-9 1/2	0-9 1/2
First Diag.	2-8	2-8
Depth	14.00	14.00



Loads

Uniform Load in TC (plf)	530.00	Live Load (plf)	397.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
19.00	19.00	4,681.67	4,681.67	1,170.42	18,553.65	18,856.57

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	6,915.14	0.00	0.00	8,217.16	0.00	24.36	0-2
V1S	0.00	6,436.84	0.00	0.00	0.00	909.88	16.23	1-1
W3	0.00	6,436.84	9,163.13	0.00	0.00	4,657.54	16.23	1-10 1/2
W4	0.00	11,283.57	9,163.13	0.00	3,622.53	0.00	16.23	2-8
W5	0.00	11,283.57	13,404.01	0.00	0.00	3,622.53	16.23	3-5 1/2
W6	0.00	14,918.61	13,404.01	0.00	2,587.52	0.00	16.23	4-3
W7	0.00	14,918.61	16,433.21	0.00	0.00	2,587.52	16.23	5-0 1/2
W8	0.00	17,341.97	16,433.21	0.00	1,552.51	0.00	16.23	5-10
W9	0.00	17,341.97	18,250.73	0.00	0.00	1,552.51	16.23	6-7 1/2
W10	0.00	18,553.65	18,250.73	0.00	1,443.56	0.00	16.23	7-5
W11	0.00	18,553.65	18,856.57	0.00	0.00	1,443.56	16.23	8-2 1/2

* Symmetrical Joist

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 14K4	J04

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.3950	0.4634	0.2955	0.8195	0.4259	0.0848	0.9964	1G = 1 1/2 x 1 1/2 x .138
BC	0.3151	0.4675	0.2972	0.8132	0.4154	0.0689	0.9050	1C = 1 1/2 x 1 1/2 x .109

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	60.85	618.45	618.45	9-10 7/8	16-3 1/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	11.00	19.00	19.00	19.00	11.00
Bending Load	530.00	-	0.00	-	530.00
Axial Load	6,915.14	-	18,553.65	-	6,915.14
fa	8,754.32	-	23,488.25	-	8,754.32
Maximum K L/r	37.23	-	43.93	-	37.23
Fa	27,022.09	-	25,972.23	-	27,022.09
F'e	264,966.22	-	88,811.40	-	264,966.22
Cm	0.9901	-	0.8942	-	0.9901
Panel Point Moment	1064.25	-	0.00	-	1064.25
Mid Panel Moment	241.86	-	0.00	-	241.86
Panel Point fb	6740.28	-	0.00	-	6740.28
Mid Panel fb	607.43	-	0.00	-	607.43
Fillers	0	-	2	-	0
Panel Point Stress	15,494.60	-	23,488.25	-	15,494.60
Mid Panel Stress	0.3448	-	0.9044	-	0.3448

Gap Between Chords:	0.50
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	20,515.78
Max Load no Fillers TC:	17,470.96
TC OAL/Ryy:	258.6979
BC Stress:	29,919.76
BC L/Rz:	63.9407
TC Shear Stress:	11,580.70
BC Shear Stress:	14,640.88

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	8,217.16	8,283.50	0.00	2,720.39	3.0 x 0.185	1	R9 = round 5/8
V1S	0.00	9,203.88	909.88	5,303.49	2.0 x 0.031	1	R9 = round 5/8
W3	0.00	9,203.88	4,657.54	5,303.49	2.0 x 0.157	1	R9 = round 5/8
W4	3,622.53	9,203.88	0.00	5,303.49	2.0 x 0.122	1	R9 = round 5/8
W5	0.00	9,203.88	3,622.53	5,303.49	2.0 x 0.122	1	R9 = round 5/8
W6	2,587.52	9,203.88	0.00	5,303.49	2.0 x 0.087	1	R9 = round 5/8
W7	0.00	9,203.88	2,587.52	5,303.49	2.0 x 0.087	1	R9 = round 5/8
W8	1,552.51	5,890.49	0.00	2,489.28	2.0 x 0.052	1	R1 = round 1/2
W9	0.00	5,890.49	1,552.51	2,489.28	2.0 x 0.052	1	R1 = round 1/2
W10	1,443.56	5,890.49	0.00	2,489.28	2.0 x 0.049	1	R1 = round 1/2
W11	0.00	5,890.49	1,443.56	2,489.28	2.0 x 0.049	1	R1 = round 1/2

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

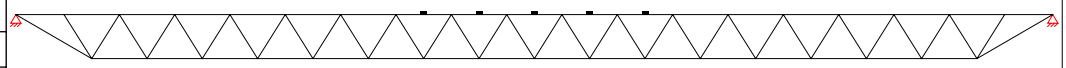
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 16K7	J05

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
30-0	29-8	16.00	15.12	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	2-4	2-4
TC Panel	1-6 1/2	1-6 1/2
First Half	0-9 1/2	0-9 1/2
First Diag.	3-1 1/2	3-1 1/2
Depth	16.00	16.00



Loads

Uniform Load in TC (plf)	296.00	Live Load (plf)	151.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
19.00	19.00	4,390.67	4,390.67	1,097.67	25,764.10	25,764.10

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	7,198.25	0.00	0.00	8,327.49	0.00	30.08	0-2
V1S	0.00	6,923.23	0.00	0.00	0.00	645.86	17.86	1-6 1/2
W3	0.00	6,923.23	9,278.34	0.00	0.00	4,427.65	17.86	2-4
W4	0.00	11,339.06	9,278.34	0.00	3,874.19	0.00	17.86	3-1 1/2
W5	0.00	11,339.06	13,399.78	0.00	0.00	3,874.19	17.86	3-11
W6	0.00	15,166.11	13,399.78	0.00	3,320.73	0.00	17.86	4-8 1/2
W7	0.00	15,166.11	16,932.44	0.00	0.00	3,320.73	17.86	5-6
W8	0.00	18,404.39	16,932.44	0.00	2,767.28	0.00	17.86	6-3 1/2
W9	0.00	18,404.39	19,876.33	0.00	0.00	2,767.28	17.86	7-1
W10	0.00	21,053.88	19,876.33	0.00	2,213.82	0.00	17.86	7-10 1/2
W11	0.00	21,053.88	22,231.44	0.00	0.00	2,213.82	17.86	8-8
W12	0.00	23,114.61	22,231.44	0.00	1,660.37	0.00	17.86	9-5 1/2
W13	0.00	23,114.61	23,997.77	0.00	0.00	1,660.37	17.86	10-3
W14	0.00	24,586.55	23,997.77	0.00	1,296.25	0.00	17.86	11-0 1/2
W15	0.00	24,586.55	25,175.33	0.00	0.00	1,296.25	17.86	11-10
W16	0.00	25,469.71	25,175.33	0.00	1,296.25	0.00	17.86	12-7 1/2
W17	0.00	25,469.71	25,764.10	0.00	0.00	1,296.25	17.86	13-5
W18	0.00	25,764.10	25,764.10	0.00	1,296.25	1,296.25	17.86	14-2 1/2

* Symmetrical Joist

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 16K7	J05

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.5260	0.4567	0.2934	0.8305	0.4436	0.1097	1.0000	1K = 1 1/2 x 1 1/2 x .187
BC	0.4437	0.4609	0.2946	0.8235	0.4324	0.0942	1.0000	1J = 1 1/2 x 1 1/2 x .156

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	110.31	236.75	236.75	10-0 3/8	16-5 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	16.50	19.00	19.00	19.00	16.50
Bending Load	296.00	-	0.00	-	296.00
Axial Load	7,198.25	-	25,764.10	-	7,198.25
fa	6,842.04	-	24,489.14	-	6,842.04
Maximum K L/r	56.24	-	43.35	-	56.24
Fa	23,805.19	-	26,148.59	-	23,805.19
F'e	114,426.70	-	86,295.48	-	114,426.70
Cm	0.9821	-	0.8865	-	0.9821
Panel Point Moment	791.06	-	0.00	-	791.06
Mid Panel Moment	490.50	-	0.00	-	490.50
Panel Point fb	3807.70	-	0.00	-	3807.70
Mid Panel fb	991.33	-	0.00	-	991.33
Fillers	0	-	5	-	0
Panel Point Stress	10,649.74	-	24,489.14	-	10,649.74
Mid Panel Stress	0.3219	-	0.9365	-	0.3219

Gap Between Chords:	0.50
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	27,509.94
Max Load no Fillers TC:	23,225.65
TC OAL/Ryy:	428.6808
BC Stress:	29,035.60
BC L/Rz:	64.4953
TC Shear Stress:	8,210.42
BC Shear Stress:	9,823.44

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	8,327.49	10,023.03	0.00	2,470.78	2.9 x 0.192	1	RB = round 11/16
V1S	0.00	9,203.88	645.86	4,543.92	2.0 x 0.022	1	R9 = round 5/8
W3	0.00	9,203.88	4,427.65	4,543.92	2.0 x 0.149	1	R9 = round 5/8
W4	3,874.19	9,203.88	0.00	4,543.92	2.0 x 0.130	1	R9 = round 5/8
W5	0.00	9,203.88	3,874.19	4,543.92	2.0 x 0.130	1	R9 = round 5/8
W6	3,320.73	9,203.88	0.00	4,543.92	2.0 x 0.112	1	R9 = round 5/8
W7	0.00	9,203.88	3,320.73	4,543.92	2.0 x 0.112	1	R9 = round 5/8
W8	2,767.28	9,203.88	0.00	4,543.92	2.0 x 0.093	1	R9 = round 5/8
W9	0.00	9,203.88	2,767.28	4,543.92	2.0 x 0.093	1	R9 = round 5/8
W10	2,213.82	9,203.88	0.00	4,543.92	2.0 x 0.075	1	R9 = round 5/8
W11	0.00	9,203.88	2,213.82	4,543.92	2.0 x 0.075	1	R9 = round 5/8
W12	1,660.37	5,890.49	0.00	1,960.53	2.0 x 0.056	1	R1 = round 1/2
W13	0.00	5,890.49	1,660.37	1,960.53	2.0 x 0.056	1	R1 = round 1/2
W14	1,296.25	5,890.49	0.00	1,960.53	2.0 x 0.044	1	R1 = round 1/2
W15	0.00	5,890.49	1,296.25	1,960.53	2.0 x 0.044	1	R1 = round 1/2
W16	1,296.25	5,890.49	0.00	1,960.53	2.0 x 0.044	1	R1 = round 1/2
W17	0.00	5,890.49	1,296.25	1,960.53	2.0 x 0.044	1	R1 = round 1/2
W18	1,296.25	5,890.49	1,296.25	1,960.53	2.0 x 0.044	1	R1 = round 1/2

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

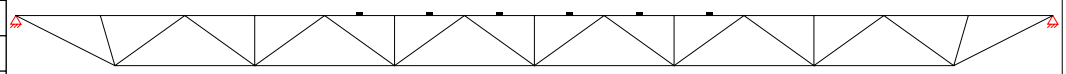
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 18K3	J06

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
30-0	29-8	18.00	17.16	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	3-0	3-0
TC Panel	2-7	2-7
First Half	2-0	2-0
First Diag.	5-0	5-0
Depth	18.00	18.00



Loads

Uniform Load in TC (plf)	203.00	Live Load (plf)	123.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
24.00	48.00	3,011.17	3,011.17	752.79	15,614.22	15,330.36

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	5,479.07	0.00	0.00	6,137.61	0.00	38.09	0-2
V1S	0.00	5,336.16	0.00	0.00	0.00	589.05	17.88	2-7
W3	0.00	5,336.16	8,517.75	0.00	0.00	3,911.45	29.51	3-0
W4	0.00	11,072.48	8,517.75	0.00	3,140.79	0.00	29.51	5-0
W5	0.00	11,072.48	13,059.49	0.00	0.00	2,442.84	29.51	7-0
W6	0.00	14,478.79	13,059.49	0.00	1,744.89	0.00	29.51	9-0
W7	0.00	14,478.79	15,330.36	0.00	0.00	1,294.12	29.51	11-0
W8	0.00	15,614.22	15,330.36	0.00	1,294.12	0.00	29.51	13-0

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	484.07	17.16

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 18K3	J06

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.3594	0.4652	0.2962	1.0320	0.4212	0.0778	0.9607	1E = 1 1/2 x 1 1/2 x .125
BC	0.3151	0.4675	0.2972	1.0278	0.4154	0.0689	0.9050	1C = 1 1/2 x 1 1/2 x .109

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	99.07	212.62	212.62	12-5 5/8	20-6 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	29.00	29.00	24.00	29.00	29.00
Bending Load	203.00	203.00	0.00	203.00	203.00
Axial Load	5,479.07	5,336.16	15,614.22	5,336.16	5,479.07
fa	7,623.06	7,424.22	21,724.14	7,424.22	7,623.06
Maximum K L/r	97.91	97.91	51.59	97.91	97.91
Fa	14,697.99	14,697.99	23,906.05	14,697.99	14,697.99
F'e	38,423.01	38,423.01	56,100.26	38,423.01	38,423.01
Cm	0.9405	0.9420	0.8451	0.9420	0.9405
Panel Point Moment	1547.17	1547.29	0.00	1547.29	1547.17
Mid Panel Moment	1088.91	556.21	0.00	556.21	1088.91
Panel Point fb	10731.65	10732.49	0.00	10732.49	10731.65
Mid Panel fb	2948.90	1506.29	0.00	1506.29	2948.90
Fillers	0	0	6	0	0
Panel Point Stress	18,354.71	18,156.71	21,724.14	18,156.71	18,354.71
Mid Panel Stress	0.6387	0.5661	0.9087	0.5661	0.6387

Gap Between Chords:	1.00
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	17,182.47
Max Load no Fillers TC:	13,061.37
TC OAL/Ryy:	344.9666
BC Stress:	24,324.72
BC L/Rz:	161.5344
TC Shear Stress:	8,302.30
BC Shear Stress:	9,509.91

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	6,137.61	16,235.65	0.00	3,911.42	2.0 x 0.207	1	RH = round 7/8
W3	0.00	9,453.57	3,911.45	4,174.58	2.4 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
W4	3,140.79	6,183.57	0.00	1,796.70	2.0 x 0.109	1	10 = 1 x 1 x .109
W5	0.00	7,818.57	2,442.84	3,497.10	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W6	1,744.89	6,183.57	0.00	1,796.70	2.0 x 0.109	1	10 = 1 x 1 x .109
W7	0.00	6,183.57	1,294.12	1,796.70	2.0 x 0.109	1	10 = 1 x 1 x .109
W8	1,294.12	6,183.57	0.00	1,796.70	2.0 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	6,183.57	589.05	3,888.97	2.0 x 0.109	1	10 = 1 x 1 x .109
V2	0.00	6,183.57	484.07	4,032.64	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

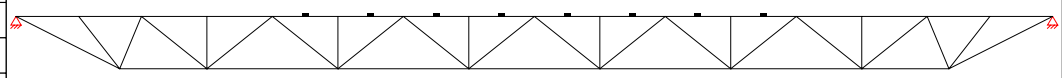
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 20K3	J07

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
32-0	31-8	20.00	19.16	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	3-4	3-4
TC Panel	2-1	2-1
First Half	0-8	0-8
First Diag.	4-0	4-0
Depth	20.00	20.00



Loads

Uniform Load in TC (plf)	199.00	Live Load (plf)	126.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
24.00	48.00	3,150.83	3,150.83	787.71	15,370.58	15,619.80

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	5,869.76	0.00	0.00	6,573.92	0.00	42.56	0-2
V1S	0.00	5,571.21	0.00	0.00	0.00	561.22	24.34	2-1
W3	0.00	5,571.21	6,647.72	0.00	0.00	2,794.39	20.77	3-4
W4	0.00	9,389.19	6,647.72	0.00	3,508.19	0.00	30.71	4-0
W5	0.00	9,389.19	11,632.21	0.00	0.00	2,870.34	30.71	6-0
W6	0.00	13,376.78	11,632.21	0.00	2,232.48	0.00	30.71	8-0
W7	0.00	13,376.78	14,622.90	0.00	0.00	1,594.63	30.71	10-0
W8	0.00	15,370.58	14,622.90	0.00	1,262.42	0.00	30.71	12-0
W9	0.00	15,370.58	15,619.80	0.00	0.00	1,262.42	30.71	14-0

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	474.85	19.16

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 20K3	J07

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.3594	0.4652	0.2962	1.0320	0.4212	0.0778	0.9607	1E = 1 1/2 x 1 1/2 x .125
BC	0.3151	0.4675	0.2972	1.0278	0.4154	0.0689	0.9050	1C = 1 1/2 x 1 1/2 x .109

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	123.46	217.88	217.88	12-5 5/8	20-6 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	23.00	23.00	24.00	23.00	23.00
Bending Load	199.00	-	0.00	-	199.00
Axial Load	5,869.76	-	15,370.58	-	5,869.76
fa	8,166.62	-	21,385.15	-	8,166.62
Maximum K L/r	77.65	-	51.59	-	77.65
Fa	18,869.25	-	23,906.05	-	18,869.25
F'e	61,084.59	-	56,100.26	-	61,084.59
Cm	0.9599	-	0.8475	-	0.9599
Panel Point Moment	918.51	-	0.00	-	918.51
Mid Panel Moment	685.40	-	0.00	-	685.40
Panel Point fb	6371.10	-	0.00	-	6371.10
Mid Panel fb	1856.16	-	0.00	-	1856.16
Fillers	0	-	8	-	0
Panel Point Stress	14,537.72	-	21,385.15	-	14,537.72
Mid Panel Stress	0.5042	-	0.8945	-	0.5042

Gap Between Chords:	1.00
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	17,182.47
Max Load no Fillers TC:	13,061.37
TC OAL/Ryy:	368.2228
BC Stress:	24,783.98
BC L/Rz:	161.5344
TC Shear Stress:	8,887.26
BC Shear Stress:	10,179.93

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	6,573.92	16,235.65	0.00	3,040.36	2.1 x 0.215	1	RH = round 7/8
W3	0.00	7,818.57	2,794.39	4,302.41	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W4	3,508.19	6,183.57	0.00	1,609.49	2.2 x 0.109	1	10 = 1 x 1 x .109
W5	0.00	7,818.57	2,870.34	3,193.10	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W6	2,232.48	6,183.57	0.00	1,609.49	2.0 x 0.109	1	10 = 1 x 1 x .109
W7	0.00	6,183.57	1,594.63	1,609.49	2.0 x 0.109	1	10 = 1 x 1 x .109
W8	1,262.42	6,183.57	0.00	1,609.49	2.0 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	6,183.57	1,262.42	1,609.49	2.0 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	6,183.57	561.22	2,550.85	2.0 x 0.109	1	10 = 1 x 1 x .109
V2	0.00	6,183.57	474.85	3,570.94	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

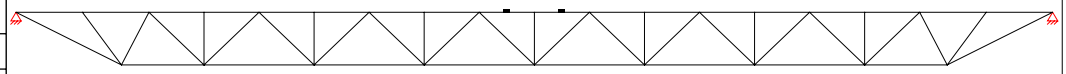
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 24K8	J08

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
38-0	37-8	24.00	22.89	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	4-0	4-0
TC Panel	2-7	2-7
First Half	1-0	1-0
First Diag.	5-0	5-0
Depth	24.00	24.00



Loads

Uniform Load in TC (plf)	310.00	Live Load (plf)	189.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
24.00	48.00	5,838.33	5,838.33	1,459.58	28,817.59	28,492.60

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	10,978.40	0.00	0.00	12,262.86	0.00	51.38	0-2
V1S	0.00	10,422.09	0.00	0.00	0.00	1,077.22	28.52	2-7
W3	0.00	10,422.09	12,893.33	0.00	0.00	5,323.00	25.85	4-0
W4	0.00	17,118.13	12,893.33	0.00	5,838.65	0.00	33.17	5-0
W5	0.00	17,118.13	20,692.96	0.00	0.00	4,940.40	33.17	7-0
W6	0.00	23,617.83	20,692.96	0.00	4,042.14	0.00	33.17	9-0
W7	0.00	23,617.83	25,892.72	0.00	0.00	3,143.89	33.17	11-0
W8	0.00	27,517.65	25,892.72	0.00	2,245.64	0.00	33.17	13-0
W9	0.00	27,517.65	28,492.60	0.00	0.00	2,114.64	33.17	15-0
W10	0.00	28,817.59	28,492.60	0.00	2,114.64	0.00	33.17	17-0

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	764.09	22.89

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 24K8	J08

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.6254	0.6208	0.3951	1.2286	0.5603	0.2410	0.9522	23 = 2 x 2 x .163
BC	0.4844	0.6262	0.3975	1.2195	0.5464	0.1900	0.8343	20 = 2 x 2 x .125

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	286.56	300.49	300.49	14-10 1/8	24-4 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	29.00	29.00	24.00	29.00	29.00
Bending Load	310.00	310.00	0.00	310.00	310.00
Axial Load	10,978.40	10,422.09	28,817.59	10,422.09	10,978.40
fa	8,776.67	8,331.92	23,038.18	8,331.92	8,776.67
Maximum K L/r	73.39	73.39	38.66	73.39	73.39
Fa	19,632.16	19,632.16	25,741.98	19,632.16	19,632.16
F'e	68,421.98	68,421.98	99,900.85	68,421.98	68,421.98
Cm	0.9615	0.9635	0.9078	0.9635	0.9615
Panel Point Moment	2362.67	2362.86	0.00	2362.86	2362.67
Mid Panel Moment	1662.86	849.39	0.00	849.39	1662.86
Panel Point fb	7057.29	7057.84	0.00	7057.84	7057.29
Mid Panel fb	1932.84	987.29	0.00	987.29	1932.84
Fillers	0	0	2	0	0
Panel Point Stress	15,833.96	15,389.77	23,038.18	15,389.77	15,833.96
Mid Panel Stress	0.5217	0.4623	0.8950	0.4623	0.5217

Gap Between Chords:	1.00
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	32,199.67
Max Load no Fillers TC:	27,637.46
TC OAL/Ryy:	367.8949
BC Stress:	29,411.72
BC L/Rz:	120.7419
TC Shear Stress:	9,459.47
BC Shear Stress:	12,309.22

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	12,262.86	16,235.65	0.00	2,150.74	3.8 x 0.215	1	RH = round 7/8
W3	0.00	10,781.25	5,323.00	5,753.40	2.9 x 0.125	1	1E = 1 1/2 x 1 1/2 x .125
W4	5,838.65	6,183.57	0.00	1,422.93	3.6 x 0.109	1	10 = 1 x 1 x .109
W5	0.00	10,781.25	4,940.40	5,287.99	2.7 x 0.125	1	1E = 1 1/2 x 1 1/2 x .125
W6	4,042.14	6,183.57	0.00	1,422.93	2.5 x 0.109	1	10 = 1 x 1 x .109
W7	0.00	8,906.25	3,143.89	3,215.59	2.0 x 0.125	1	18 = 1 1/4 x 1 1/4 x .125
W8	2,245.64	6,183.57	0.00	1,422.93	2.0 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	7,818.57	2,114.64	2,841.81	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W10	2,114.64	6,183.57	0.00	1,422.93	2.0 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	6,183.57	1,077.22	1,925.18	2.0 x 0.109	1	10 = 1 x 1 x .109
V2	0.00	6,183.57	764.09	2,891.98	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

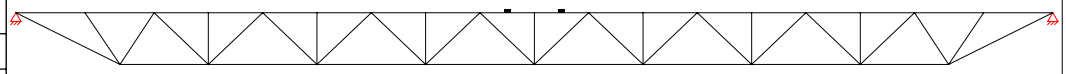
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 24K8	J09

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
38-6	38-2	24.00	22.89	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	4-0	4-0
TC Panel	2-8 1/2	2-8 1/2
First Half	1-3	1-3
First Diag.	5-3	5-3
Depth	24.00	24.00



Loads

Uniform Load in TC (plf)	302.00	Live Load (plf)	181.50

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
24.00	48.00	5,763.17	5,763.17	1,440.79	28,824.18	28,507.58

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	10,808.86	0.00	0.00	12,073.49	0.00	51.38	0-2
V1S	0.00	10,289.17	0.00	0.00	0.00	1,071.09	27.65	2-8 1/2
W3	0.00	10,289.17	13,310.87	0.00	0.00	5,513.55	27.37	4-0
W4	0.00	17,426.64	13,310.87	0.00	5,687.98	0.00	33.17	5-3
W5	0.00	17,426.64	20,909.22	0.00	0.00	4,812.90	33.17	7-3
W6	0.00	23,758.61	20,909.22	0.00	3,937.83	0.00	33.17	9-3
W7	0.00	23,758.61	25,974.79	0.00	0.00	3,062.76	33.17	11-3
W8	0.00	27,557.78	25,974.79	0.00	2,187.68	0.00	33.17	13-3
W9	0.00	27,557.78	28,507.58	0.00	0.00	2,087.41	33.17	15-3
W10	0.00	28,824.18	28,507.58	0.00	2,087.41	0.00	33.17	17-3

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	748.12	22.89

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 24K8	J09

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.6254	0.6208	0.3951	1.2286	0.5603	0.2410	0.9522	23 = 2 x 2 x .163
BC	0.4844	0.6262	0.3975	1.2195	0.5464	0.1900	0.8343	20 = 2 x 2 x .125

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	286.56	288.84	288.84	14-10 1/8	24-4 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	30.50	30.50	24.00	30.50	30.50
Bending Load	302.00	302.00	0.00	302.00	302.00
Axial Load	10,808.86	10,289.17	28,824.18	10,289.17	10,808.86
fa	8,641.13	8,225.66	23,043.45	8,225.66	8,641.13
Maximum K L/r	77.19	77.19	38.66	77.19	77.19
Fa	18,866.17	18,866.17	25,741.98	18,866.17	18,866.17
F'e	61,857.44	61,857.44	99,900.85	61,857.44	61,857.44
Cm	0.9581	0.9601	0.9077	0.9601	0.9581
Panel Point Moment	2558.87	2559.15	0.00	2559.15	2558.87
Mid Panel Moment	1786.82	937.68	0.00	937.68	1786.82
Panel Point fb	7643.33	7644.15	0.00	7644.15	7643.33
Mid Panel fb	2076.92	1089.92	0.00	1089.92	2076.92
Fillers	0	0	2	0	0
Panel Point Stress	16,284.46	15,869.81	23,043.45	15,869.81	16,284.46
Mid Panel Stress	0.5390	0.4783	0.8952	0.4783	0.5390

Gap Between Chords:	1.00
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	32,199.67
Max Load no Fillers TC:	27,637.46
TC OAL/Ryy:	372.7784
BC Stress:	29,427.18
BC L/Rz:	120.7419
TC Shear Stress:	9,313.39
BC Shear Stress:	12,119.13

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	12,073.49	16,235.65	0.00	2,150.74	3.8 x 0.215	1	RH = round 7/8
W3	0.00	11,848.68	5,513.55	5,939.48	2.7 x 0.138	1	1G = 1 1/2 x 1 1/2 x .138
W4	5,687.98	6,183.57	0.00	1,422.93	3.5 x 0.109	1	10 = 1 x 1 x .109
W5	0.00	10,781.25	4,812.90	5,287.99	2.6 x 0.125	1	1E = 1 1/2 x 1 1/2 x .125
W6	3,937.83	6,183.57	0.00	1,422.93	2.4 x 0.109	1	10 = 1 x 1 x .109
W7	0.00	8,906.25	3,062.76	3,215.59	2.0 x 0.125	1	18 = 1 1/4 x 1 1/4 x .125
W8	2,187.68	6,183.57	0.00	1,422.93	2.0 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	7,818.57	2,087.41	2,841.81	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W10	2,087.41	6,183.57	0.00	1,422.93	2.0 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	6,183.57	1,071.09	2,047.97	2.0 x 0.109	1	10 = 1 x 1 x .109
V2	0.00	6,183.57	748.12	2,891.98	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

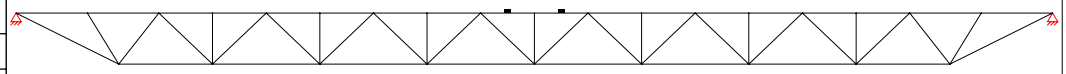
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 24K8	J10

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
39-0	38-8	24.00	22.89	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	4-0	4-0
TC Panel	2-10	2-10
First Half	1-6	1-6
First Diag.	5-6	5-6
Depth	24.00	24.00



Loads

Uniform Load in TC (plf)	294.00	Live Load (plf)	174.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
24.00	48.00	5,684.00	5,684.00	1,421.00	28,800.65	28,492.45

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	10,633.30	0.00	0.00	11,877.39	0.00	51.38	0-2
V1S	0.00	10,153.86	0.00	0.00	0.00	1,062.98	26.83	2-10
W3	0.00	10,153.86	13,698.29	0.00	0.00	5,734.55	29.12	4-0
W4	0.00	17,705.04	13,698.29	0.00	5,537.30	0.00	33.17	5-6
W5	0.00	17,705.04	21,095.37	0.00	0.00	4,685.41	33.17	7-6
W6	0.00	23,869.27	21,095.37	0.00	3,833.52	0.00	33.17	9-6
W7	0.00	23,869.27	26,026.75	0.00	0.00	2,981.62	33.17	11-6
W8	0.00	27,567.81	26,026.75	0.00	2,129.73	0.00	33.17	13-6
W9	0.00	27,567.81	28,492.45	0.00	0.00	2,058.74	33.17	15-6
W10	0.00	28,800.65	28,492.45	0.00	2,058.74	0.00	33.17	17-6

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	732.00	22.89

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 24K8	J10

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.6254	0.6208	0.3951	1.2286	0.5603	0.2410	0.9522	23 = 2 x 2 x .163
BC	0.4844	0.6262	0.3975	1.2195	0.5464	0.1900	0.8343	20 = 2 x 2 x .125

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	286.56	277.78	277.78	14-10 1/8	24-4 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	32.00	32.00	24.00	32.00	32.00
Bending Load	294.00	294.00	0.00	294.00	294.00
Axial Load	10,633.30	10,153.86	28,800.65	10,153.86	10,633.30
fa	8,500.78	8,117.49	23,024.65	8,117.49	8,500.78
Maximum K L/r	80.99	80.99	38.66	80.99	80.99
Fa	18,093.72	18,093.72	25,741.98	18,093.72	18,093.72
F'e	56,194.22	56,194.22	99,900.85	56,194.22	56,194.22
Cm	0.9546	0.9567	0.9078	0.9567	0.9546
Panel Point Moment	2753.22	2753.58	0.00	2753.58	2753.22
Mid Panel Moment	1910.46	1024.23	0.00	1024.23	1910.46
Panel Point fb	8223.86	8224.94	0.00	8224.94	8223.86
Mid Panel fb	2220.64	1190.52	0.00	1190.52	2220.64
Fillers	0	0	2	0	0
Panel Point Stress	16,724.64	16,342.43	23,024.65	16,342.43	16,724.64
Mid Panel Stress	0.5573	0.4952	0.8944	0.4952	0.5573

Gap Between Chords:	1.00
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	32,199.67
Max Load no Fillers TC:	27,637.46
TC OAL/Ryy:	377.6620
BC Stress:	29,411.56
BC L/Rz:	120.7419
TC Shear Stress:	9,162.12
BC Shear Stress:	11,922.29

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	11,877.39	16,235.65	0.00	2,150.74	3.7 x 0.215	1	RH = round 7/8
W3	0.00	13,309.92	5,734.55	6,069.24	2.5 x 0.156	1	1J = 1 1/2 x 1 1/2 x .156
W4	5,537.30	6,183.57	0.00	1,422.93	3.4 x 0.109	1	10 = 1 x 1 x .109
W5	0.00	10,781.25	4,685.41	5,287.99	2.5 x 0.125	1	1E = 1 1/2 x 1 1/2 x .125
W6	3,833.52	6,183.57	0.00	1,422.93	2.4 x 0.109	1	10 = 1 x 1 x .109
W7	0.00	8,906.25	2,981.62	3,215.59	2.0 x 0.125	1	18 = 1 1/4 x 1 1/4 x .125
W8	2,129.73	6,183.57	0.00	1,422.93	2.0 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	7,818.57	2,058.74	2,841.81	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W10	2,058.74	6,183.57	0.00	1,422.93	2.0 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	6,183.57	1,062.98	2,173.81	2.0 x 0.109	1	10 = 1 x 1 x .109
V2	0.00	6,183.57	732.00	2,891.98	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

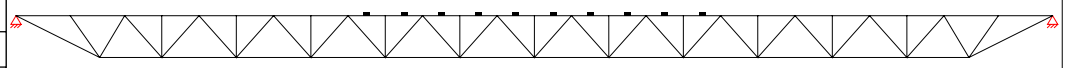
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 28K9	J11

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
56-0	55-8	28.00	27.00	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	4-8	4-8
TC Panel	3-1	3-1
First Half	1-4	1-4
First Diag.	6-0	6-0
Depth	28.00	28.00



Loads

Uniform Load in TC (plf)	181.00	Live Load (plf)	87.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
24.00	48.00	5,037.83	5,037.83	1,259.46	31,164.35	31,003.44

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	9,549.11	0.00	0.00	10,675.92	0.00	60.37	0-2
V1S	0.00	9,177.56	0.00	0.00	0.00	801.38	33.01	3-1
W3	0.00	9,177.56	11,694.04	0.00	0.00	4,935.67	31.38	4-8
W4	0.00	15,073.18	11,694.04	0.00	5,085.89	0.00	36.12	6-0
W5	0.00	15,073.18	18,130.51	0.00	0.00	4,601.52	36.12	8-0
W6	0.00	20,866.00	18,130.51	0.00	4,117.15	0.00	36.12	10-0
W7	0.00	20,866.00	23,279.68	0.00	0.00	3,632.78	36.12	12-0
W8	0.00	25,371.53	23,279.68	0.00	3,148.41	0.00	36.12	14-0
W9	0.00	25,371.53	27,141.56	0.00	0.00	2,664.04	36.12	16-0
W10	0.00	28,589.77	27,141.56	0.00	2,179.67	0.00	36.12	18-0
W11	0.00	28,589.77	29,716.15	0.00	0.00	1,695.30	36.12	20-0
W12	0.00	30,520.71	29,716.15	0.00	1,685.20	0.00	36.12	22-0
W13	0.00	30,520.71	31,003.44	0.00	0.00	1,685.20	36.12	24-0
W14	0.00	31,164.35	31,003.44	0.00	1,685.20	0.00	36.12	26-0

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	517.82	27.00

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 28K9	J11

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.6254	0.6208	0.3951	1.2286	0.5603	0.2410	0.9522	23 = 2 x 2 x .163
BC	0.5260	0.4567	0.2934	1.0483	0.4436	0.1097	1.0000	1K = 1 1/2 x 1 1/2 x .187

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	416.81	135.41	135.41	14-10 1/8	20-11 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	35.00	35.00	24.00	35.00	35.00
Bending Load	181.00	181.00	0.00	181.00	181.00
Axial Load	9,549.11	9,177.56	31,164.35	9,177.56	9,549.11
fa	7,634.02	7,336.99	24,914.30	7,336.99	7,634.02
Maximum K L/r	88.58	88.58	38.66	88.58	88.58
Fa	16,542.52	16,542.52	25,741.98	16,542.52	16,542.52
F'e	46,973.79	46,973.79	99,900.85	46,973.79	46,973.79
Cm	0.9512	0.9531	0.9002	0.9531	0.9512
Panel Point Moment	2039.54	2039.88	0.00	2039.88	2039.54
Mid Panel Moment	1402.43	775.17	0.00	775.17	1402.43
Panel Point fb	6092.08	6093.11	0.00	6093.11	6092.08
Mid Panel fb	1630.12	901.02	0.00	901.02	1630.12
Fillers	0	0	10	0	0
Panel Point Stress	13,726.10	13,430.10	24,914.30	13,430.10	13,726.10
Mid Panel Stress	0.5263	0.4792	0.9678	0.4792	0.5263

Gap Between Chords:	1.00
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	32,199.67
Max Load no Fillers TC:	27,637.46
TC OAL/Ryy:	543.7031
BC Stress:	29,469.21
BC L/Rz:	163.6173
TC Shear Stress:	8,257.10
BC Shear Stress:	9,644.12

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	10,675.92	21,205.75	0.00	2,462.74	3.1 x 0.230	1	RM = round 1
W3	0.00	13,309.92	4,935.67	4,964.99	2.1 x 0.156	1	1J = 1 1/2 x 1 1/2 x .156
W4	5,085.89	6,183.57	0.00	1,111.71	3.1 x 0.109	1	10 = 1 x 1 x .109
W5	0.00	11,848.68	4,601.52	4,815.53	2.2 x 0.138	1	1G = 1 1/2 x 1 1/2 x .138
W6	4,117.15	6,183.57	0.00	1,111.71	2.5 x 0.109	1	10 = 1 x 1 x .109
W7	0.00	9,453.57	3,632.78	3,823.73	2.2 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
W8	3,148.41	6,183.57	0.00	1,111.71	2.0 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	9,453.57	2,664.04	3,823.73	2.0 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
W10	2,179.67	6,183.57	0.00	1,111.71	2.0 x 0.109	1	10 = 1 x 1 x .109
W11	0.00	7,818.57	1,695.30	2,220.24	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W12	1,685.20	6,183.57	0.00	1,111.71	2.0 x 0.109	1	10 = 1 x 1 x .109
W13	0.00	7,818.57	1,685.20	2,220.24	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W14	1,685.20	6,183.57	0.00	1,111.71	2.0 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	6,183.57	801.38	1,331.03	2.0 x 0.109	1	10 = 1 x 1 x .109
V2	0.00	6,183.57	517.82	1,990.34	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

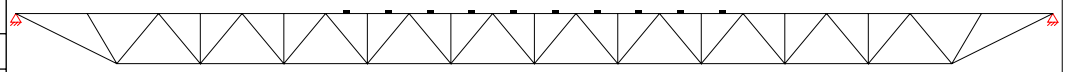
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 30K12	J12

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
50-0	49-8	30.00	28.84	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	5-0	5-0
TC Panel	3-7	3-7
First Half	2-0	2-0
First Diag.	7-0	7-0
Depth	30.00	30.00



Loads

Uniform Load in TC (plf)	350.00	Live Load (plf)	199.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
24.00	48.00	8,691.67	8,691.67	2,172.92	44,906.03	44,614.77

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	16,277.71	0.00	0.00	18,178.90	0.00	64.77	0-2
V1S	0.00	15,572.79	0.00	0.00	0.00	1,612.67	33.48	3-7
W3	0.00	15,572.79	21,313.23	0.00	0.00	8,974.06	37.52	5-0
W4	0.00	26,264.80	21,313.23	0.00	7,740.84	0.00	37.52	7-0
W5	0.00	26,264.80	30,633.84	0.00	0.00	6,830.15	37.52	9-0
W6	0.00	34,420.34	30,633.84	0.00	5,919.47	0.00	37.52	11-0
W7	0.00	34,420.34	37,624.30	0.00	0.00	5,008.78	37.52	13-0
W8	0.00	40,245.73	37,624.30	0.00	4,098.09	0.00	37.52	15-0
W9	0.00	40,245.73	42,284.61	0.00	0.00	3,187.41	37.52	17-0
W10	0.00	43,740.96	42,284.61	0.00	2,826.93	0.00	37.52	19-0
W11	0.00	43,740.96	44,614.77	0.00	0.00	2,826.93	37.52	21-0
W12	0.00	44,906.03	44,614.77	0.00	2,826.93	0.00	37.52	23-0

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	924.53	28.84

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 30K12	J12

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.8742	0.6113	0.3918	1.2455	0.5852	0.3266	1.0000	28 = 2 x 2 x .232
BC	0.7780	0.6149	0.3929	1.2389	0.5755	0.2942	1.0000	26 = 2 x 2 x .205

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	685.34	313.48	313.48	15-0 5/8	24-9 3/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	41.00	41.00	24.00	41.00	41.00
Bending Load	350.00	350.00	0.00	350.00	350.00
Axial Load	16,277.71	15,572.79	44,906.03	15,572.79	16,277.71
fa	9,310.31	8,907.13	25,684.78	8,907.13	9,310.31
Maximum K L/r	104.65	104.65	39.26	104.65	104.65
Fa	13,469.80	13,469.80	26,802.24	13,469.80	13,469.80
F'e	33,193.72	33,193.72	96,872.66	33,193.72	33,193.72
Cm	0.9159	0.9195	0.8939	0.9195	0.9159
Panel Point Moment	5444.65	5445.81	0.00	5445.81	5444.65
Mid Panel Moment	3708.63	2115.22	0.00	2115.22	3708.63
Panel Point fb	11791.22	11793.75	0.00	11793.75	11791.22
Mid Panel fb	3322.21	1894.82	0.00	1894.82	3322.21
Fillers	0	0	10	0	0
Panel Point Stress	21,101.54	20,700.88	25,684.78	20,700.88	21,101.54
Mid Panel Stress	0.8322	0.7406	0.9583	0.7406	0.8322

Gap Between Chords:	1.00
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	46,859.75
Max Load no Fillers TC:	39,864.75
TC OAL/Ryy:	478.5109
BC Stress:	28,673.65
BC L/Rz:	122.1588
TC Shear Stress:	9,886.29
BC Shear Stress:	11,170.79

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	18,178.90	21,205.75	0.00	2,167.88	5.3 x 0.230	1	RM = round 1
W3	0.00	20,190.72	8,974.06	9,264.91	3.4 x 0.176	1	24 = 2 x 2 x .176
W4	7,740.84	7,818.57	0.00	2,085.36	4.8 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W5	0.00	14,531.25	6,830.15	7,795.04	3.7 x 0.125	1	20 = 2 x 2 x .125
W6	5,919.47	6,183.57	0.00	1,044.17	3.7 x 0.109	1	10 = 1 x 1 x .109
W7	0.00	13,309.92	5,008.78	5,068.33	2.2 x 0.156	1	1J = 1 1/2 x 1 1/2 x .156
W8	4,098.09	6,183.57	0.00	1,044.17	2.5 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	9,453.57	3,187.41	3,629.64	2.0 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
W10	2,826.93	6,183.57	0.00	1,044.17	2.0 x 0.109	1	10 = 1 x 1 x .109
W11	0.00	9,453.57	2,826.93	3,629.64	2.0 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
W12	2,826.93	6,183.57	0.00	1,044.17	2.0 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	7,818.57	1,612.67	2,619.40	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
V2	0.00	6,183.57	924.53	1,767.31	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

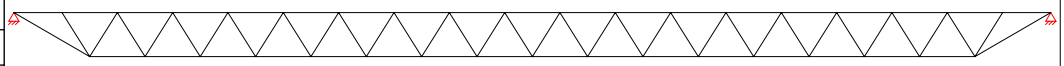
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 16KCS2	J13

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
30-0	29-8	16.00	15.13	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	2-4	2-4
TC Panel	1-6 1/2	1-6 1/2
First Half	0-9 1/2	0-9 1/2
First Diag.	3-1 1/2	3-1 1/2
Depth	16.00	16.00



Loads

Moment Capacity (inch-kips)	349.00	Gross Moment of Inertia (in^4)	99.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
19.00	19.00	4,000.00	4,000.00	4,000.00	23,065.98	23,065.98

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	6,873.53	0.00	0.00	7,952.70	0.00	30.08	0-2
V1S	0.00	23,065.98	0.00	0.00	4,723.09	4,723.09	17.87	1-6 1/2
W3	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	2-4
W4	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	3-1 1/2
W5	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	3-11
W6	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	4-8 1/2
W7	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	5-6
W8	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	6-3 1/2
W9	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	7-1
W10	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	7-10 1/2
W11	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	8-8
W12	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	9-5 1/2
W13	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	10-3
W14	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	11-0 1/2
W15	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	11-10
W16	0.00	23,065.98	23,065.98	0.00	4,723.09	4,723.09	17.87	12-7 1/2
W17	0.00	23,065.98	23,065.97	0.00	4,723.09	4,723.09	17.87	13-5
W18	0.00	23,065.98	23,065.97	0.00	4,723.09	4,723.09	17.87	14-2 1/2

* Symmetrical Joist

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 16KCS2	J13

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.5260	0.4567	0.2934	0.8305	0.4436	0.1097	1.0000	1K = 1 1/2 x 1 1/2 x .187
BC	0.3950	0.4634	0.2955	0.8195	0.4259	0.0848	0.9964	1G = 1 1/2 x 1 1/2 x .138

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	103.48	222.10	222.10	11-9 1/8	16-4 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	16.50	19.00	19.00	19.00	16.50
Bending Load	550.00	-	0.00	-	550.00
Axial Load	6,873.53	-	23,065.98	-	6,873.53
fa	6,533.39	-	21,924.54	-	6,533.39
Maximum K L/r	56.24	-	43.35	-	56.24
Fa	23,805.19	-	26,148.59	-	23,805.19
F'e	114,426.70	-	86,295.48	-	114,426.70
Cm	0.9829	-	0.8984	-	0.9829
Panel Point Moment	1469.87	-	0.00	-	1469.87
Mid Panel Moment	911.40	-	0.00	-	911.40
Panel Point fb	7075.11	-	0.00	-	7075.11
Mid Panel fb	1841.99	-	0.00	-	1841.99
Fillers	0	-	0	-	0
Panel Point Stress	13,608.50	-	21,924.54	-	13,608.50
Mid Panel Stress	0.3385	-	0.8385	-	0.3385

Gap Between Chords:	0.50
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	27,509.94
Max Load no Fillers TC:	23,225.65
TC OAL/Ryy:	428.6808
BC Stress:	29,200.70
BC L/Rz:	64.3031
TC Shear Stress:	7,842.83
BC Shear Stress:	10,596.26

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	7,952.70	8,283.50	0.00	1,688.66	2.9 x 0.185	1	R9 = round 5/8
V1S	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W3	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W4	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W5	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W6	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W7	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W8	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W9	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W10	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W11	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W12	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W13	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W14	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W15	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W16	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W17	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16
W18	4,723.09	11,136.70	4,723.09	6,215.54	2.0 x 0.159	1	RB = round 11/16

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

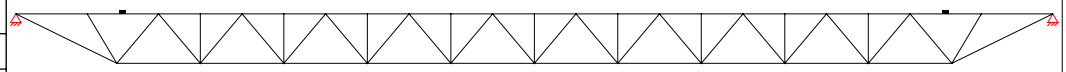
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 30KCS5	J14

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
50-0	49-8	30.00	28.45	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	5-0	5-0
TC Panel	3-7	3-7
First Half	2-0	2-0
First Diag.	7-0	7-0
Depth	30.00	30.00



Loads

Moment Capacity (inch-kips)	1,833.00	Gross Moment of Inertia (in^4)	934.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
24.00	48.00	9,200.00	9,200.00	9,200.00	64,433.93	64,433.94

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	18,757.20	0.00	0.00	20,891.92	0.00	64.60	0-2
V1S	0.00	64,433.93	0.00	0.00	10,717.55	10,717.55	33.14	3-7
W3	0.00	64,433.93	64,433.94	0.00	12,036.71	12,036.71	37.22	5-0
W4	0.00	64,433.93	64,433.94	0.00	12,036.71	12,036.71	37.22	7-0
W5	0.00	64,433.93	64,433.94	0.00	12,036.71	12,036.71	37.22	9-0
W6	0.00	64,433.93	64,433.94	0.00	12,036.71	12,036.71	37.22	11-0
W7	0.00	64,433.93	64,433.93	0.00	12,036.71	12,036.71	37.22	13-0
W8	0.00	64,433.93	64,433.93	0.00	12,036.71	12,036.71	37.22	15-0
W9	0.00	64,433.93	64,433.93	0.00	12,036.71	12,036.71	37.22	17-0
W10	0.00	64,433.93	64,433.93	0.00	12,036.71	12,036.71	37.22	19-0
W11	0.00	64,433.93	64,433.93	0.00	12,036.71	12,036.71	37.22	21-0
W12	0.00	64,433.93	64,433.93	0.00	12,036.71	12,036.71	37.22	23-0

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	9,200.00	9,200.00	28.45

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 30KCS5	J14

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	1.4375	0.9304	0.5924	1.6333	0.8424	1.2442	0.9607	33 = 3 x 3 x .250
BC	1.0971	0.7723	0.4925	1.4353	0.7099	0.6543	0.9964	2E = 2 1/2 x 2 1/2 x .230

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
1.00	50,000.00	30,000.00	1,008.99	461.51	461.51	23-1 5/8	28-8 1/2

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	41.00	41.00	24.00	41.00	41.00
Bending Load	550.00	0.00	0.00	0.00	550.00
Axial Load	18,757.20	64,433.93	64,433.93	64,433.93	18,757.20
fa	6,524.24	22,411.80	22,411.80	22,411.80	6,524.24
Maximum K L/r	69.21	44.07	25.80	44.07	69.21
Fa	20,586.01	25,145.80	27,504.98	25,145.80	20,586.01
F'e	76,891.73	76,891.73	224,401.03	76,891.73	76,891.73
Cm	0.9745	0.9126	0.9601	0.9126	0.9745
Panel Point Moment	8555.87	0.00	0.00	0.00	8555.87
Mid Panel Moment	5827.85	0.00	0.00	0.00	5827.85
Panel Point fb	7418.28	0.00	0.00	0.00	7418.28
Mid Panel fb	1972.82	0.00	0.00	0.00	1972.82
Fillers	0	1	0	1	0
Panel Point Stress	13,942.52	22,411.80	22,411.80	22,411.80	13,942.52
Mid Panel Stress	0.3898	0.8913	0.8148	0.8913	0.3898

Gap Between Chords:	1.00
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	79,076.83
Max Load no Fillers TC:	73,837.16
TC OAL/Ryy:	364.9120
BC Stress:	29,365.57
BC L/Rz:	97.4700
TC Shear Stress:	6,207.41
BC Shear Stress:	8,097.50

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	20,891.92	21,205.75	0.00	2,388.39	6.1 x 0.230	1	RM = round 1
W3	12,036.71	26,225.28	12,036.71	12,960.80	4.3 x 0.188	1	28 = 2 x 2 x .232
W4	12,036.71	20,190.72	12,036.71	12,331.30	4.6 x 0.176	1	24 = 2 x 2 x .176
W5	12,036.71	20,190.72	12,036.71	12,331.30	4.6 x 0.176	1	24 = 2 x 2 x .176
W6	12,036.71	20,190.72	12,036.71	12,331.30	4.6 x 0.176	1	24 = 2 x 2 x .176
W7	12,036.71	20,190.72	12,036.71	12,331.30	4.6 x 0.176	1	24 = 2 x 2 x .176
W8	12,036.71	20,190.72	12,036.71	12,331.30	4.6 x 0.176	1	24 = 2 x 2 x .176
W9	12,036.71	20,190.72	12,036.71	12,331.30	4.6 x 0.176	1	24 = 2 x 2 x .176
W10	12,036.71	20,190.72	12,036.71	12,331.30	4.6 x 0.176	1	24 = 2 x 2 x .176
W11	12,036.71	20,190.72	12,036.71	12,331.30	4.6 x 0.176	1	24 = 2 x 2 x .176
W12	12,036.71	20,190.72	12,036.71	12,331.30	4.6 x 0.176	1	24 = 2 x 2 x .176
V1	10,717.55	18,762.93	10,717.55	12,423.94	4.4 x 0.163	1	23 = 2 x 2 x .163
V2	9,200.00	14,531.25	9,200.00	9,616.00	5.0 x 0.125	1	20 = 2 x 2 x .125

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

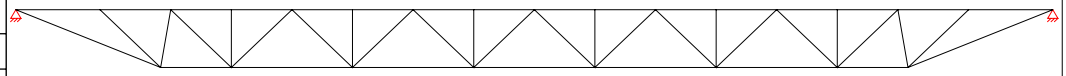
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 18LH02	T01

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
26-0	25-8	18.00	17.12	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	3-9	3-9
TC Panel	2-3	2-3
First Half	0-3	0-3
First Diag.	4-0	4-0
Depth	18.00	18.00



Loads

Uniform Load in TC (plf)	442.00	Live Load (plf)	284.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
18.00	36.00	5,672.33	5,672.33	1,418.08	25,157.83	25,506.29

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	13,087.62	0.00	0.00	14,087.23	0.00	46.28	0-2
V1S	0.00	12,197.12	0.00	0.00	0.00	1,354.89	24.84	2-3
W3	0.00	12,197.12	12,961.79	0.00	0.00	4,431.23	17.38	3-9
W4	0.00	16,794.83	12,961.79	0.00	5,290.48	0.00	24.84	4-0
W5	0.00	16,794.83	19,930.96	0.00	0.00	4,328.57	24.84	5-6
W6	0.00	22,370.17	19,930.96	0.00	3,366.67	0.00	24.84	7-0
W7	0.00	22,370.17	24,112.46	0.00	0.00	2,404.76	24.84	8-6
W8	0.00	25,157.83	24,112.46	0.00	2,057.41	0.00	24.84	10-0
W9	0.00	25,157.83	25,506.29	0.00	0.00	2,057.41	24.84	11-6

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	788.79	17.12

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 18LH02	T01

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.5260	0.4567	0.2934	1.0483	0.4436	0.1097	1.0000	1K = 1 1/2 x 1 1/2 x .187
BC	0.4437	0.4609	0.2946	1.0401	0.4324	0.0942	1.0000	1J = 1 1/2 x 1 1/2 x .156

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
0.75	50,000.00	30,000.00	141.35	468.47	468.47	14-10 1/4	20-9 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	25.00	21.00	18.00	21.00	25.00
Bending Load	442.00	442.00	442.00	442.00	442.00
Axial Load	13,087.62	12,197.12	25,157.83	12,197.12	13,087.62
fa	12,439.97	11,593.54	23,912.88	11,593.54	12,439.97
Maximum K L/r	85.22	71.58	34.34	71.58	85.22
Fa	17,640.91	20,625.74	27,521.54	20,625.74	17,640.91
F'e	49,844.27	70,640.97	170,933.70	70,640.97	49,844.27
Cm	0.9251	0.9508	0.9440	0.9508	0.9251
Panel Point Moment	2277.37	2277.31	994.50	2277.31	2277.37
Mid Panel Moment	1851.57	479.44	497.25	479.44	1851.57
Panel Point fb	10961.96	10961.67	4786.96	10961.67	10961.96
Mid Panel fb	3742.11	968.97	1004.97	968.97	3742.11
Fillers	0	0	0	0	0
Panel Point Stress	23,401.93	22,555.21	28,699.84	22,555.21	23,401.93
Mid Panel Stress	0.8590	0.5988	0.9056	0.5988	0.8590

Gap Between Chords:	1.00
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	27,877.66
Max Load no Fillers TC:	26,036.95
TC OAL/Ryy:	293.8080
BC Stress:	28,745.05
BC L/Rz:	122.2017
TC Shear Stress:	11,180.33
BC Shear Stress:	13,357.02

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	14,087.23	18,039.61	0.00	2,022.95	4.4 x 0.215	1	RH = round 7/8
W3	0.00	7,818.57	4,431.23	4,581.60	2.7 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W4	5,290.48	6,183.57	0.00	3,197.18	3.3 x 0.109	1	10 = 1 x 1 x .109
W5	0.00	7,818.57	4,328.57	5,081.18	2.7 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W6	3,366.67	6,183.57	0.00	3,197.18	2.1 x 0.109	1	10 = 1 x 1 x .109
W7	0.00	6,183.57	2,404.76	3,197.18	2.0 x 0.109	1	10 = 1 x 1 x .109
W8	2,057.41	6,183.57	0.00	3,197.18	2.0 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	6,183.57	2,057.41	3,197.18	2.0 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	6,183.57	1,354.89	3,197.18	2.0 x 0.109	1	10 = 1 x 1 x .109
V2	0.00	6,183.57	788.79	4,520.05	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

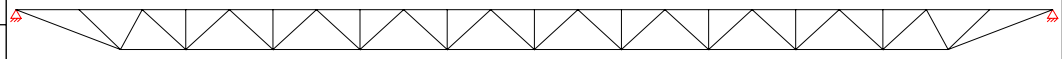
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 20LH10	T02

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
40-0	39-8	20.00	18.32	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	4-2	4-2
TC Panel	2-7	2-7
First Half	0-10	0-10
First Diag.	5-0	5-0
Depth	20.00	20.00



Loads

Uniform Load in TC (plf)	575.00	Live Load (plf)	254.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
20.00	40.00	11,404.17	11,404.17	2,851.04	74,062.74	73,539.73

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	28,053.99	0.00	0.00	30,028.60	0.00	51.38	0-2
V1S	0.00	26,613.11	0.00	0.00	0.00	2,372.08	26.40	2-7
W3	0.00	26,613.11	31,699.34	0.00	0.00	10,617.35	20.87	4-2
W4	0.00	40,590.42	31,699.34	0.00	12,058.44	0.00	27.12	5-0
W5	0.00	40,590.42	48,435.50	0.00	0.00	10,639.80	27.12	6-8
W6	0.00	55,234.56	48,435.50	0.00	9,221.16	0.00	27.12	8-4
W7	0.00	55,234.56	60,987.62	0.00	0.00	7,802.52	27.12	10-0
W8	0.00	65,694.66	60,987.62	0.00	6,383.88	0.00	27.12	11-8
W9	0.00	65,694.66	69,355.70	0.00	0.00	4,965.24	27.12	13-4
W10	0.00	71,970.72	69,355.70	0.00	4,220.45	0.00	27.12	15-0
W11	0.00	71,970.72	73,539.73	0.00	0.00	4,220.45	27.12	16-8
W12	0.00	74,062.74	73,539.73	0.00	4,220.45	0.00	27.12	18-4

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	1,328.65	18.32

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 20LH10	T02

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	1.4375	0.9304	0.5924	1.6333	0.8424	1.2442	0.9607	33 = 3 x 3 x .250
BC	1.3105	0.9336	0.5937	1.6283	0.8340	1.1423	0.9223	31 = 3 x 3 x .227

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
0.75	50,000.00	30,000.00	462.72	415.47	415.47	23-1 5/8	32-6 3/4

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	29.00	29.00	20.00	29.00	29.00
Bending Load	575.00	575.00	575.00	575.00	575.00
Axial Load	28,053.99	26,613.11	74,062.74	26,613.11	28,053.99
fa	9,757.91	9,256.73	25,760.95	9,256.73	9,757.91
Maximum K L/r	48.96	48.96	22.04	48.96	48.96
Fa	24,355.61	24,355.61	27,854.25	24,355.61	24,355.61
F'e	153,692.03	153,692.03	574,466.69	153,692.03	153,692.03
Cm	0.9810	0.9819	0.9821	0.9819	0.9810
Panel Point Moment	4446.78	4447.52	1597.22	4447.52	4446.78
Mid Panel Moment	3059.20	1688.16	798.61	1688.16	3059.20
Panel Point fb	3855.53	3856.17	1384.85	3856.17	3855.53
Mid Panel fb	1035.59	571.47	270.34	571.47	1035.59
Fillers	0	0	0	0	0
Panel Point Stress	13,613.44	13,112.91	27,145.81	13,112.91	13,613.44
Mid Panel Stress	0.4383	0.4008	0.9345	0.4008	0.4383

Gap Between Chords:	1.00
Min Weld Len 2X:	0.7980
Max Load Fillers TC:	79,307.06
Max Load no Fillers TC:	78,446.54
TC OAL/Ryy:	291.4398
BC Stress:	28,058.51
BC L/Rz:	67.3696
TC Shear Stress:	8,647.42
BC Shear Stress:	9,511.53

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	30,028.60	31,561.86	0.00	18,016.54	10.8 x 0.187	2	1K = 1 1/2 x 1 1/2 x .187
W3	0.00	16,546.53	10,617.35	11,430.32	5.0 x 0.143	1	21 = 2 x 2 x .143
W4	12,058.44	13,309.92	0.00	9,391.75	5.2 x 0.156	1	1J = 1 1/2 x 1 1/2 x .156
W5	0.00	15,780.93	10,639.80	11,102.84	3.8 x 0.187	1	1K = 1 1/2 x 1 1/2 x .187
W6	9,221.16	9,453.57	0.00	6,274.21	5.7 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
W7	0.00	11,848.68	7,802.52	8,358.51	3.8 x 0.138	1	1G = 1 1/2 x 1 1/2 x .138
W8	6,383.88	7,031.25	0.00	3,187.29	3.4 x 0.125	1	11 = 1 x 1 x .125
W9	0.00	8,906.25	4,965.24	5,395.74	2.7 x 0.125	1	18 = 1 1/4 x 1 1/4 x .125
W10	4,220.45	6,183.57	0.00	2,816.81	2.6 x 0.109	1	10 = 1 x 1 x .109
W11	0.00	7,818.57	4,220.45	4,698.08	2.6 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W12	4,220.45	6,183.57	0.00	2,816.81	2.6 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	6,183.57	2,372.08	2,936.70	2.0 x 0.109	1	10 = 1 x 1 x .109
V2	0.00	6,183.57	1,328.65	4,319.24	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

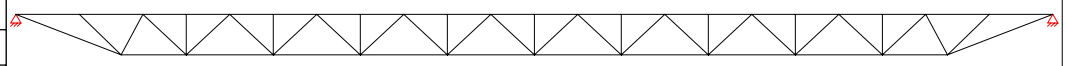
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 24LH11	T03

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
48-0	47-8	24.00	22.30	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	5-0	5-0
TC Panel	3-1	3-1
First Half	1-0	1-0
First Diag.	6-0	6-0
Depth	24.00	24.00



Loads

Uniform Load in TC (plf)	544.00	Live Load (plf)	243.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
24.00	48.00	12,965.33	12,965.33	3,241.33	83,126.18	82,540.81

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	31,652.50	0.00	0.00	33,912.21	0.00	62.14	0-2
V1S	0.00	30,016.32	0.00	0.00	0.00	2,694.80	32.04	3-1
W3	0.00	30,016.32	35,711.45	0.00	0.00	12,020.14	25.33	5-0
W4	0.00	45,662.69	35,711.45	0.00	13,585.02	0.00	32.76	6-0
W5	0.00	45,662.69	54,443.20	0.00	0.00	11,986.78	32.76	8-0
W6	0.00	62,052.97	54,443.20	0.00	10,388.54	0.00	32.76	10-0
W7	0.00	62,052.97	68,492.01	0.00	0.00	8,790.31	32.76	12-0
W8	0.00	73,760.31	68,492.01	0.00	7,192.07	0.00	32.76	14-0
W9	0.00	73,760.31	77,857.88	0.00	0.00	5,593.83	32.76	16-0
W10	0.00	80,784.72	77,857.88	0.00	4,761.41	0.00	32.76	18-0
W11	0.00	80,784.72	82,540.81	0.00	0.00	4,761.41	32.76	20-0
W12	0.00	83,126.18	82,540.81	0.00	4,761.41	0.00	32.76	22-0

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	1,503.63	22.30

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 24LH11	T03

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	1.6070	0.9260	0.5907	1.6401	0.8536	1.3780	1.0000	35 = 3 x 3 x .281
BC	1.4375	0.9304	0.5924	1.6333	0.8424	1.2442	0.9607	33 = 3 x 3 x .250

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
0.75	50,000.00	30,000.00	757.55	391.98	391.98	23-2 7/8	32-8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	35.00	35.00	24.00	35.00	35.00
Bending Load	544.00	544.00	544.00	544.00	544.00
Axial Load	31,652.50	30,016.32	83,126.18	30,016.32	31,652.50
fa	9,848.08	9,339.01	25,863.15	9,339.01	9,848.08
Maximum K L/r	59.25	59.25	21.95	59.25	59.25
Fa	23,207.89	23,207.89	28,961.54	23,207.89	23,207.89
F'e	104,531.77	104,531.77	395,220.47	104,531.77	104,531.77
Cm	0.9717	0.9732	0.9738	0.9732	0.9717
Panel Point Moment	6129.88	6130.91	2176.00	6130.91	6129.88
Mid Panel Moment	4215.04	2329.78	1088.00	2329.78	4215.04
Panel Point fb	4773.79	4774.59	1694.61	4774.59	4773.79
Mid Panel fb	1305.54	721.61	336.99	721.61	1305.54
Fillers	0	0	0	0	0
Panel Point Stress	14,621.87	14,113.61	27,557.76	14,113.61	14,621.87
Mid Panel Stress	0.4710	0.4281	0.9047	0.4281	0.4710

Gap Between Chords:	1.00
Min Weld Len 2X:	0.8957
Max Load Fillers TC:	91,990.05
Max Load no Fillers TC:	89,035.17
TC OAL/Ryy:	348.7634
BC Stress:	28,709.85
BC L/Rz:	81.0298
TC Shear Stress:	8,738.80
BC Shear Stress:	9,805.63

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	33,912.21	37,525.86	0.00	23,232.31	14.0 x 0.163	2	23 = 2 x 2 x .163
W3	0.00	20,190.72	12,020.14	12,935.58	4.6 x 0.176	1	24 = 2 x 2 x .176
W4	13,585.02	14,531.25	0.00	9,602.74	7.3 x 0.125	1	20 = 2 x 2 x .125
W5	0.00	18,762.93	11,986.78	13,648.33	5.0 x 0.163	1	23 = 2 x 2 x .163
W6	10,388.54	10,781.25	0.00	6,386.79	5.6 x 0.125	1	1E = 1 1/2 x 1 1/2 x .125
W7	0.00	14,531.25	8,790.31	9,602.74	4.7 x 0.125	1	20 = 2 x 2 x .125
W8	7,192.07	7,818.57	0.00	3,757.66	4.4 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W9	0.00	10,781.25	5,593.83	6,386.79	3.0 x 0.125	1	1E = 1 1/2 x 1 1/2 x .125
W10	4,761.41	6,183.57	0.00	1,978.56	2.9 x 0.109	1	10 = 1 x 1 x .109
W11	0.00	9,453.57	4,761.41	5,441.65	2.9 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
W12	4,761.41	6,183.57	0.00	1,978.56	2.9 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	7,818.57	2,694.80	3,876.30	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
V2	0.00	6,183.57	1,503.63	3,633.73	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

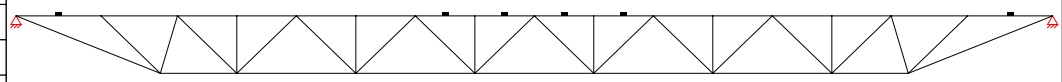
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 28LH05	T04

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
41-0	40-8	28.00	27.00	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	5-10	5-10
TC Panel	3-6	3-6
First Half	0-8	0-8
First Diag.	6-6	6-6
Depth	28.00	28.00



Loads

Uniform Load in TC (plf)	337.00	Live Load (plf)	219.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
28.00	56.00	6,852.33	6,852.33	1,713.08	30,559.00	30,966.79

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	15,845.41	0.00	0.00	17,048.45	0.00	73.16	0-2
V1S	0.00	14,738.56	0.00	0.00	0.00	1,690.31	38.89	3-6
W3	0.00	14,738.56	16,286.48	0.00	0.00	5,448.03	28.16	5-10
W4	0.00	20,772.13	16,286.48	0.00	6,230.99	0.00	38.89	6-6
W5	0.00	20,772.13	24,442.21	0.00	0.00	5,098.08	38.89	8-10
W6	0.00	27,296.71	24,442.21	0.00	3,965.18	0.00	38.89	11-2
W7	0.00	27,296.71	29,335.64	0.00	0.00	2,832.27	38.89	13-6
W8	0.00	30,559.00	29,335.64	0.00	2,468.12	0.00	38.89	15-10
W9	0.00	30,559.00	30,966.79	0.00	0.00	2,468.12	38.89	18-2

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	939.13	27.00

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 28LH05	T04

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.6254	0.6208	0.3951	1.2286	0.5603	0.2410	0.9522	23 = 2 x 2 x .163
BC	0.5260	0.4567	0.2934	1.0483	0.4436	0.1097	1.0000	1K = 1 1/2 x 1 1/2 x .187

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
0.75	50,000.00	30,000.00	416.81	347.31	347.31	17-4 7/8	20-11 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	40.00	36.00	28.00	36.00	40.00
Bending Load	337.00	337.00	337.00	337.00	337.00
Axial Load	15,845.41	14,738.56	30,559.00	14,738.56	15,845.41
fa	12,667.59	11,782.72	24,430.36	11,782.72	12,667.59
Maximum K L/r	64.44	91.11	35.43	91.11	64.44
Fa	21,394.05	16,026.98	26,174.63	16,026.98	21,394.05
F'e	35,964.30	44,400.38	130,482.73	44,400.38	35,964.30
Cm	0.8943	0.9204	0.9251	0.9204	0.8943
Panel Point Moment	4619.03	4619.27	1834.78	4619.27	4619.03
Mid Panel Moment	3544.56	1290.21	917.39	1290.21	3544.56
Panel Point fb	13797.02	13797.73	5480.47	13797.73	13797.02
Mid Panel fb	4120.05	1499.69	1066.33	1499.69	4120.05
Fillers	1	0	4	0	1
Panel Point Stress	26,464.61	25,580.45	29,910.83	25,580.45	26,464.61
Mid Panel Stress	0.7912	0.8010	0.9758	0.8010	0.7912

Gap Between Chords:	1.00
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	31,344.34
Max Load no Fillers TC:	28,119.78
TC OAL/Ryy:	397.1962
BC Stress:	29,434.38
BC L/Rz:	190.8868
TC Shear Stress:	11,541.49
BC Shear Stress:	13,507.37

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	17,048.45	26,619.84	0.00	8,666.89	7.4 x 0.156	2	1J = 1 1/2 x 1 1/2 x .156
W3	0.00	14,531.25	5,448.03	7,802.70	2.9 x 0.125	1	20 = 2 x 2 x .125
W4	6,230.99	7,031.25	0.00	1,586.54	3.4 x 0.125	1	11 = 1 x 1 x .125
W5	0.00	10,781.25	5,098.08	5,240.19	2.7 x 0.125	1	1E = 1 1/2 x 1 1/2 x .125
W6	3,965.18	6,183.57	0.00	1,403.97	2.4 x 0.109	1	10 = 1 x 1 x .109
W7	0.00	8,906.25	2,832.27	3,172.73	2.0 x 0.125	1	18 = 1 1/4 x 1 1/4 x .125
W8	2,468.12	6,183.57	0.00	1,403.97	2.0 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	7,818.57	2,468.12	2,803.94	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
V1	0.00	7,818.57	1,690.31	2,803.94	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
V2	0.00	6,183.57	939.13	2,837.85	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

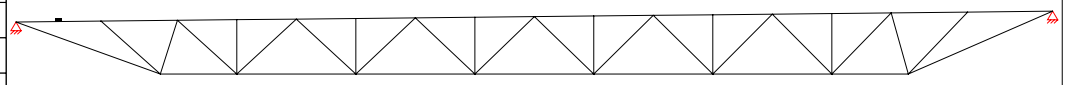
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 28LH05	T04S

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
41-0	40-8	28.00	26.99	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	5-10	5-10
TC Panel	3-6	3-6
First Half	0-8	0-8
First Diag.	6-6	6-6
Depth	25.44	30.56



Loads

Uniform Load in TC (plf)	337.00	Live Load (plf)	219.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
28.00	56.00	6,852.33	6,852.33	1,713.08	30,899.58	30,972.21

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	17,002.79	0.00	0.00	18,067.69	0.00	72.26	0-2
V1S	0.00	15,815.10	0.00	0.00	0.00	1,742.92	37.45	3-6
W3	0.00	15,815.10	17,417.51	0.00	0.00	5,306.90	26.48	5-10
W4	0.00	21,962.36	17,417.51	0.00	6,117.55	0.00	37.70	6-6
W5	0.00	21,962.36	25,549.77	0.00	0.00	4,882.00	38.09	8-10
W6	0.00	28,216.80	25,549.77	0.00	3,626.21	0.00	38.09	11-2
W7	0.00	28,216.80	29,988.25	0.00	0.00	2,496.73	38.49	13-6
W8	0.00	30,899.58	29,988.25	0.00	2,496.73	0.00	38.49	15-10
W9	0.00	30,899.58	30,972.21	0.00	0.00	2,468.34	38.89	18-2
W9	0.00	30,239.57	30,972.21	0.00	0.00	2,468.34	38.89	20-6
W8	0.00	30,239.57	28,720.68	0.00	2,441.44	0.00	39.30	22-10
W7	0.00	26,446.48	28,720.68	0.00	0.00	3,193.86	39.30	25-2
W6	0.00	26,446.48	23,434.56	0.00	4,269.43	0.00	39.71	27-6
W5	0.00	19,712.86	23,434.56	0.00	0.00	5,279.56	39.71	29-10
W4	0.00	19,712.86	15,298.43	0.00	6,324.43	0.00	40.12	32-2
W3	0.00	13,805.17	15,298.43	0.00	0.00	5,571.21	29.83	34-6
V1S	0.00	13,805.17	0.00	0.00	0.00	1,650.07	40.39	37-6
W2	0.00	14,841.92	0.00	0.00	16,180.18	0.00	74.14	35-2

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	940.83	28.45

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 28LH05	T04S

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.6730	0.6189	0.3944	1.2318	0.5650	0.2578	0.9808	24 = 2 x 2 x .176
BC	0.5260	0.4567	0.2934	1.0483	0.4436	0.1097	1.0000	1K = 1 1/2 x 1 1/2 x .187

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
0.75	50,000.00	30,000.00	430.58	358.78	358.78	17-5 3/8	20-11 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	40.00	36.00	28.00	36.00	40.00
Bending Load	337.00	337.00	337.00	337.00	337.00
Axial Load	17,002.79	15,815.10	30,899.58	13,805.17	14,841.92
fa	12,631.64	11,749.28	22,955.78	10,256.08	11,026.29
Maximum K L/r	64.63	91.28	35.50	91.28	101.43
Fa	21,807.59	16,187.64	26,882.02	16,187.64	14,070.41
F'e	35,748.34	44,133.75	129,699.19	44,133.75	35,748.34
Cm	0.8940	0.9201	0.9292	0.9303	0.9075
Panel Point Moment	4619.53	4619.77	1834.98	4619.77	4619.53
Mid Panel Moment	3544.95	1290.35	917.49	1290.35	3544.95
Panel Point fb	12856.46	12857.13	5106.86	12857.13	12856.46
Mid Panel fb	3884.33	1413.89	1005.33	1413.89	3884.33
Fillers	1	0	0	0	0
Panel Point Stress	25,488.10	24,606.41	28,062.64	23,113.20	23,882.76
Mid Panel Stress	0.7617	0.7861	0.8925	0.6918	0.9569

Gap Between Chords:	1.00
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	34,763.77
Max Load no Fillers TC:	31,071.52
TC OAL/Ryy:	396.1772
BC Stress:	29,439.53
BC L/Rz:	190.8868
TC Shear Stress:	10,686.69
BC Shear Stress:	13,481.02

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	18,067.69	26,619.84	0.00	8,884.11	7.8 x 0.156	2	1J = 1 1/2 x 1 1/2 x .156
W3	0.00	13,309.92	5,306.90	5,684.80	2.3 x 0.156	1	1J = 1 1/2 x 1 1/2 x .156
W4	6,117.55	6,183.57	0.00	1,494.43	3.8 x 0.109	1	10 = 1 x 1 x .109
W5	0.00	10,781.25	4,882.00	5,388.14	2.6 x 0.125	1	1E = 1 1/2 x 1 1/2 x .125
W6	3,626.21	6,183.57	0.00	1,463.78	2.2 x 0.109	1	10 = 1 x 1 x .109
W7	0.00	7,818.57	2,496.73	2,863.32	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W8	2,496.73	6,183.57	0.00	1,433.70	2.0 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	7,818.57	2,468.34	2,804.41	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W9	0.00	7,818.57	2,468.34	2,804.41	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W8	2,441.44	6,183.57	0.00	1,375.29	2.0 x 0.109	1	10 = 1 x 1 x .109
W7	0.00	9,453.57	3,193.86	4,461.95	2.0 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
W6	4,269.43	6,183.57	0.00	1,346.97	2.6 x 0.109	1	10 = 1 x 1 x .109
W5	0.00	11,848.68	5,279.56	5,632.08	2.6 x 0.138	1	1G = 1 1/2 x 1 1/2 x .138
W4	6,324.43	7,031.25	0.00	1,490.77	3.4 x 0.125	1	11 = 1 x 1 x .125
W3	0.00	14,531.25	5,571.21	7,392.43	3.0 x 0.125	1	20 = 2 x 2 x .125
W2	16,180.18	26,619.84	0.00	8,440.97	7.0 x 0.156	2	1J = 1 1/2 x 1 1/2 x .156
V1	0.00	7,818.57	1,742.92	3,022.89	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
V2	0.00	6,183.57	940.83	3,080.53	2.0 x 0.109	1	10 = 1 x 1 x .109

STRESS ANALYSIS - PAGE 1

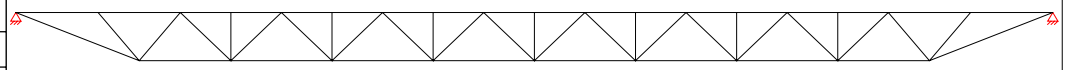
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 32LH10	T05

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
55-0	54-8	32.00	30.44	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	6-8	6-8
TC Panel	4-6	4-6
First Half	2-2	2-2
First Diag.	8-10	8-10
Depth	32.00	32.00



Loads

Uniform Load in TC (plf)	462.00	Live Load (plf)	254.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
32.00	64.00	12,628.00	12,628.00	3,157.00	68,034.09	67,386.53

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	29,792.74	0.00	0.00	31,981.16	0.00	83.73	0-2
V1S	0.00	28,082.78	0.00	0.00	0.00	2,973.03	40.03	4-6
W3	0.00	28,082.78	36,303.74	0.00	0.00	12,657.99	40.03	6-8
W4	0.00	44,722.00	36,303.74	0.00	11,618.74	0.00	44.17	8-10
W5	0.00	44,722.00	51,845.14	0.00	0.00	9,831.24	44.17	11-6
W6	0.00	57,673.16	51,845.14	0.00	8,043.74	0.00	44.17	14-2
W7	0.00	57,673.16	62,206.07	0.00	0.00	6,256.24	44.17	16-10
W8	0.00	65,443.86	62,206.07	0.00	4,580.46	0.00	44.17	19-6
W9	0.00	65,443.86	67,386.53	0.00	0.00	4,580.46	44.17	22-2
W10	0.00	68,034.09	67,386.53	0.00	4,580.46	0.00	44.17	24-10

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	1,572.17	30.44

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 32LH10	T05

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	1.4375	0.9304	0.5924	1.6333	0.8424	1.2442	0.9607	33 = 3 x 3 x .250
BC	1.1875	0.7695	0.4915	1.4400	0.7171	0.7031	1.0000	2F = 2 1/2 x 2 1/2 x .250

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
0.75	50,000.00	30,000.00	1,207.11	414.07	414.07	23-1 5/8	28-9 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	52.00	52.00	32.00	52.00	52.00
Bending Load	462.00	462.00	462.00	462.00	462.00
Axial Load	29,792.74	28,082.78	68,034.09	28,082.78	29,792.74
fa	10,362.69	9,767.92	23,664.03	9,767.92	10,362.69
Maximum K L/r	87.78	87.78	27.01	87.78	87.78
Fa	16,773.98	16,773.98	27,381.48	16,773.98	16,773.98
F'e	47,801.40	47,801.40	224,401.05	47,801.40	47,801.40
Cm	0.9350	0.9387	0.9578	0.9387	0.9350
Panel Point Moment	11544.27	11546.60	3285.33	11546.60	11544.27
Mid Panel Moment	7880.95	4461.91	1642.67	4461.91	7880.95
Panel Point fb	10009.33	10011.35	2848.51	10011.35	10009.33
Mid Panel fb	2667.83	1510.43	556.07	1510.43	2667.83
Fillers	0	0	0	0	0
Panel Point Stress	20,372.02	19,779.28	26,512.54	19,779.28	20,372.02
Mid Panel Stress	0.7283	0.6442	0.8849	0.6442	0.7283

Gap Between Chords:	1.00
Min Weld Len 2X:	0.7331
Max Load Fillers TC:	77,079.26
Max Load no Fillers TC:	72,304.68
TC OAL/Ryy:	401.6481
BC Stress:	28,373.28
BC L/Rz:	130.2247
TC Shear Stress:	9,323.60
BC Shear Stress:	11,218.72

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	31,981.16	33,093.06	0.00	14,284.39	15.1 x 0.143	2	21 = 2 x 2 x .143
W3	0.00	18,907.14	12,657.99	12,673.22	7.8 x 0.109	2	1C = 1 1/2 x 1 1/2 x .109
W4	11,618.74	11,848.68	0.00	4,725.68	5.7 x 0.138	1	1G = 1 1/2 x 1 1/2 x .138
W5	0.00	18,762.93	9,831.24	10,952.83	4.1 x 0.163	1	23 = 2 x 2 x .163
W6	8,043.74	8,906.25	0.00	2,460.59	4.3 x 0.125	1	18 = 1 1/4 x 1 1/4 x .125
W7	0.00	14,531.25	6,256.24	7,937.56	3.4 x 0.125	1	20 = 2 x 2 x .125
W8	4,580.46	6,183.57	0.00	1,088.84	2.8 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	11,848.68	4,580.46	4,725.68	2.2 x 0.138	1	1G = 1 1/2 x 1 1/2 x .138
W10	4,580.46	6,183.57	0.00	1,088.84	2.8 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	8,906.25	2,973.03	2,994.89	2.0 x 0.125	1	18 = 1 1/4 x 1 1/4 x .125
V2	0.00	6,183.57	1,572.17	2,292.10	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

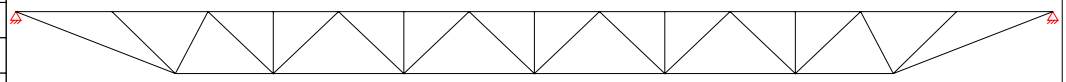
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 36LH15	T06

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
48-0	47-8	36.00	34.16	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	7-6	7-6
TC Panel	4-7	4-7
First Half	1-6	1-6
First Diag.	9-0	9-0
Depth	36.00	36.00



Loads

Uniform Load in TC (plf)	957.00	Live Load (plf)	674.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
36.00	72.00	22,808.50	22,808.50	5,702.13	95,491.26	93,978.27

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	53,318.95	0.00	0.00	57,194.39	0.00	94.40	0-2
V1S	0.00	48,987.78	0.00	0.00	0.00	6,529.27	48.90	4-7
W3	0.00	48,987.78	57,666.47	0.00	0.00	18,615.24	38.61	7-6
W4	0.00	71,283.40	57,666.47	0.00	18,770.57	0.00	49.63	9-0
W5	0.00	71,283.40	81,874.34	0.00	0.00	14,599.33	49.63	12-0
W6	0.00	89,439.29	81,874.34	0.00	10,428.09	0.00	49.63	15-0
W7	0.00	89,439.29	93,978.27	0.00	0.00	8,284.54	49.63	18-0
W8	0.00	95,491.26	93,978.27	0.00	8,284.54	0.00	49.63	21-0

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	3,348.46	34.16

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 36LH15	T06

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	2.0867	1.0826	0.6900	1.8419	0.9902	2.4454	0.9854	3E = 3 1/2 x 3 1/2 x .312
BC	1.6070	0.9260	0.5907	1.6401	0.8536	1.3780	1.0000	35 = 3 x 3 x .281

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
0.75	50,000.00	30,000.00	2,122.11	1,098.03	1,098.03	26-1 1/8	32-9 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	53.00	53.00	36.00	53.00	53.00
Bending Load	957.00	957.00	957.00	957.00	957.00
Axial Load	53,318.95	48,987.78	95,491.26	48,987.78	53,318.95
fa	12,776.17	11,738.34	22,881.41	11,738.34	12,776.17
Maximum K L/r	76.81	76.81	26.09	76.81	76.81
Fa	19,324.59	19,324.59	28,148.10	19,324.59	19,324.59
F'e	62,301.41	62,301.41	240,061.25	62,301.41	62,301.41
Cm	0.9385	0.9435	0.9619	0.9435	0.9385
Panel Point Moment	24739.88	24744.13	8613.00	24744.13	24739.88
Mid Panel Moment	16998.38	9420.10	4306.50	9420.10	16998.38
Panel Point fb	12695.82	12698.00	4419.95	12698.00	12695.82
Mid Panel fb	3441.46	1907.17	871.89	1907.17	3441.46
Fillers	0	0	0	0	0
Panel Point Stress	25,471.99	24,436.35	27,301.36	24,436.35	25,471.99
Mid Panel Stress	0.7986	0.6824	0.8443	0.6824	0.7986

Gap Between Chords:	1.00
Min Weld Len 2X:	1.0289
Max Load Fillers TC:	113,740.06
Max Load no Fillers TC:	106,994.23
TC OAL/Ryy:	310.5505
BC Stress:	29,239.57
BC L/Rz:	121.8910
TC Shear Stress:	11,427.96
BC Shear Stress:	14,814.46

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	57,194.39	60,903.36	0.00	30,843.86	18.2 x 0.212	2	2C = 2 1/2 x 2 1/2 x .212
W3	0.00	26,619.84	18,615.24	19,446.95	8.0 x 0.156	2	1J = 1 1/2 x 1 1/2 x .156
W4	18,770.57	20,190.72	0.00	10,456.21	7.2 x 0.176	1	24 = 2 x 2 x .176
W5	0.00	26,619.84	14,599.33	15,846.73	6.3 x 0.156	2	1J = 1 1/2 x 1 1/2 x .156
W6	10,428.09	10,781.25	0.00	3,427.72	5.6 x 0.125	1	1E = 1 1/2 x 1 1/2 x .125
W7	0.00	16,546.53	8,284.54	8,327.62	3.9 x 0.143	1	21 = 2 x 2 x .143
W8	8,284.54	8,906.25	0.00	1,949.00	4.5 x 0.125	1	18 = 1 1/4 x 1 1/4 x .125
V1	0.00	14,531.25	6,529.27	7,212.78	3.5 x 0.125	1	20 = 2 x 2 x .125
V2	0.00	7,818.57	3,348.46	3,533.08	2.1 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

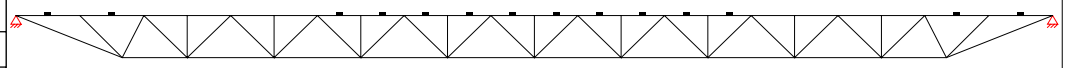
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 40LH08	T07

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
80-0	79-8	40.00	38.84	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	8-4	8-4
TC Panel	5-1	5-1
First Half	1-8	1-8
First Diag.	10-0	10-0
Depth	40.00	40.00



Loads

Uniform Load in TC (plf)	174.00	Live Load (plf)	83.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
40.00	80.00	6,931.00	6,931.00	1,732.75	42,650.27	42,351.61

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	16,409.09	0.00	0.00	17,650.79	0.00	105.42	0-2
V1S	0.00	15,550.05	0.00	0.00	0.00	1,425.62	55.04	5-1
W3	0.00	15,550.05	18,458.32	0.00	0.00	6,352.56	43.69	8-4
W4	0.00	23,535.64	18,458.32	0.00	7,077.01	0.00	55.75	10-0
W5	0.00	23,535.64	28,015.63	0.00	0.00	6,244.42	55.75	13-4
W6	0.00	31,898.29	28,015.63	0.00	5,411.83	0.00	55.75	16-8
W7	0.00	31,898.29	35,183.63	0.00	0.00	4,579.25	55.75	20-0
W8	0.00	37,871.62	35,183.63	0.00	3,746.66	0.00	55.75	23-4
W9	0.00	37,871.62	39,962.28	0.00	0.00	2,914.06	55.75	26-8
W10	0.00	41,455.61	39,962.28	0.00	2,487.36	0.00	55.75	30-0
W11	0.00	41,455.61	42,351.61	0.00	0.00	2,487.36	55.75	33-4
W12	0.00	42,650.27	42,351.61	0.00	2,487.36	0.00	55.75	36-8

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	793.25	38.84

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 40LH08	T07

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	0.9375	0.6089	0.3911	1.2500	0.5917	0.3476	1.0000	29 = 2 x 2 x .250
BC	0.7130	0.6174	0.3938	1.2345	0.5690	0.2718	1.0000	25 = 2 x 2 x .187

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
0.75	50,000.00	30,000.00	1,222.50	135.49	135.49	17-8 1/2	24-8 1/4

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	59.00	59.00	40.00	59.00	59.00
Bending Load	174.00	174.00	174.00	174.00	174.00
Axial Load	16,409.09	15,550.05	42,650.27	15,550.05	16,409.09
fa	8,751.52	8,293.36	22,746.81	8,293.36	8,751.52
Maximum K L/r	96.90	96.90	51.13	96.90	96.90
Fa	15,100.37	15,100.37	24,779.68	15,100.37	15,100.37
F'e	15,905.40	15,905.40	61,518.55	15,905.40	15,905.40
Cm	0.8349	0.8436	0.8521	0.8436	0.8349
Panel Point Moment	5574.80	5575.76	1933.33	5575.76	5574.80
Mid Panel Moment	3829.78	2123.45	966.67	2123.45	3829.78
Panel Point fb	11293.69	11295.65	3916.64	11295.65	11293.69
Mid Panel fb	3259.51	1807.26	822.73	1807.26	3259.51
Fillers	1	1	10	1	1
Panel Point Stress	20,045.21	19,589.01	26,663.45	19,589.01	20,045.21
Mid Panel Stress	0.7812	0.6554	0.9550	0.6554	0.7812

Gap Between Chords:	1.00
Min Weld Len 2X:	0.5000
Max Load Fillers TC:	44,703.92
Max Load no Fillers TC:	35,317.00
TC OAL/Ryy:	764.8000
BC Stress:	29,698.29
BC L/Rz:	203.1428
TC Shear Stress:	7,838.34
BC Shear Stress:	10,425.41

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	17,650.79	17,812.50	0.00	1,943.63	9.5 x 0.125	2	18 = 1 1/4 x 1 1/4 x .125
W3	0.00	23,339.25	6,352.56	6,582.54	2.3 x 0.188	1	26 = 2 x 2 x .205
W4	7,077.01	7,818.57	0.00	1,364.58	4.4 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W5	0.00	16,546.53	6,244.42	7,154.53	2.9 x 0.143	1	21 = 2 x 2 x .143
W6	5,411.83	6,183.57	0.00	683.26	3.3 x 0.109	1	10 = 1 x 1 x .109
W7	0.00	14,531.25	4,579.25	6,173.19	2.5 x 0.125	1	20 = 2 x 2 x .125
W8	3,746.66	6,183.57	0.00	683.26	2.3 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	11,848.68	2,914.06	2,970.07	2.0 x 0.138	1	1G = 1 1/2 x 1 1/2 x .138
W10	2,487.36	6,183.57	0.00	683.26	2.0 x 0.109	1	10 = 1 x 1 x .109
W11	0.00	10,781.25	2,487.36	2,715.54	2.0 x 0.125	1	1E = 1 1/2 x 1 1/2 x .125
W12	2,487.36	6,183.57	0.00	683.26	2.0 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	8,906.25	1,425.62	1,584.32	2.0 x 0.125	1	18 = 1 1/4 x 1 1/4 x .125
V2	0.00	6,183.57	793.25	1,407.97	2.0 x 0.109	1	10 = 1 x 1 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

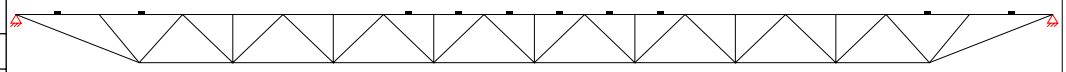
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 44LH13	T08

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
76-0	75-8	44.00	42.28	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	9-2	9-2
TC Panel	6-3	6-3
First Half	3-2	3-2
First Diag.	12-4	12-4
Depth	44.00	44.00



Loads

Uniform Load in TC (plf)	444.00	Live Load (plf)	246.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
44.00	88.00	16,798.00	16,798.00	4,199.50	90,184.76	89,337.68

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	39,457.69	0.00	0.00	42,373.75	0.00	115.98	0-2
V1S	0.00	37,221.84	0.00	0.00	0.00	3,957.26	54.89	6-3
W3	0.00	37,221.84	48,677.61	0.00	0.00	17,137.91	56.85	9-2
W4	0.00	59,689.71	48,677.61	0.00	15,272.36	0.00	61.02	12-4
W5	0.00	59,689.71	69,007.64	0.00	0.00	12,922.77	61.02	16-0
W6	0.00	76,631.41	69,007.64	0.00	10,573.17	0.00	61.02	19-8
W7	0.00	76,631.41	82,561.00	0.00	0.00	8,223.58	61.02	23-4
W8	0.00	86,796.41	82,561.00	0.00	6,060.89	0.00	61.02	27-0
W9	0.00	86,796.41	89,337.68	0.00	0.00	6,060.89	61.02	30-8
W10	0.00	90,184.76	89,337.68	0.00	6,060.89	0.00	61.02	34-4

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	2,078.92	42.28

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 44LH13	T08

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	1.7747	0.9218	0.5892	1.6470	0.8649	1.5078	1.0000	37 = 3 x 3 x .312
BC	1.6070	0.9260	0.5907	1.6401	0.8536	1.3780	1.0000	35 = 3 x 3 x .281

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
0.75	50,000.00	30,000.00	3,018.23	390.42	390.42	23-4	32-9 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	73.00	73.00	44.00	73.00	73.00
Bending Load	444.00	444.00	444.00	444.00	444.00
Axial Load	39,457.69	37,221.84	90,184.76	37,221.84	39,457.69
fa	11,117.00	10,487.06	25,409.08	10,487.06	11,117.00
Maximum K L/r	79.20	79.20	37.34	79.20	79.20
Fa	18,964.99	18,964.99	27,092.45	18,964.99	18,964.99
F'e	23,808.63	23,808.63	116,507.06	23,808.63	23,808.63
Cm	0.8599	0.8679	0.9128	0.8679	0.8599
Panel Point Moment	21878.79	21883.33	5969.33	21883.33	21878.79
Mid Panel Moment	14921.09	8475.79	2984.67	8475.79	14921.09
Panel Point fb	15490.88	15494.10	4226.48	15494.10	15490.88
Mid Panel fb	4279.31	2430.82	855.99	2430.82	4279.31
Fillers	1	1	6	1	1
Panel Point Stress	26,607.88	25,981.16	29,635.56	25,981.16	26,607.88
Mid Panel Stress	0.8163	0.6786	0.9712	0.6786	0.8163

Gap Between Chords:	1.00
Min Weld Len 2X:	0.9717
Max Load Fillers TC:	92,938.57
Max Load no Fillers TC:	81,881.45
TC OAL/Ryy:	551.3192
BC Stress:	27,795.74
BC L/Rz:	148.9779
TC Shear Stress:	9,949.38
BC Shear Stress:	11,028.35

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	42,373.75	42,781.86	0.00	9,904.81	15.3 x 0.187	2	25 = 2 x 2 x .187
W3	0.00	29,062.50	17,137.91	17,750.52	9.2 x 0.125	2	20 = 2 x 2 x .125
W4	15,272.36	15,780.93	0.00	3,255.25	5.5 x 0.187	1	1K = 1 1/2 x 1 1/2 x .187
W5	0.00	29,062.50	12,922.77	16,927.50	7.0 x 0.125	2	20 = 2 x 2 x .125
W6	10,573.17	10,781.25	0.00	2,266.88	5.7 x 0.125	1	1E = 1 1/2 x 1 1/2 x .125
W7	0.00	23,339.25	8,223.58	8,636.68	3.0 x 0.188	1	26 = 2 x 2 x .205
W8	6,060.89	6,183.57	0.00	570.37	3.7 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	16,546.53	6,060.89	6,191.09	2.9 x 0.143	1	21 = 2 x 2 x .143
W10	6,060.89	6,183.57	0.00	570.37	3.7 x 0.109	1	10 = 1 x 1 x .109
V1	0.00	14,531.25	3,957.26	6,302.90	2.1 x 0.125	1	20 = 2 x 2 x .125
V2	0.00	7,818.57	2,078.92	2,372.72	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

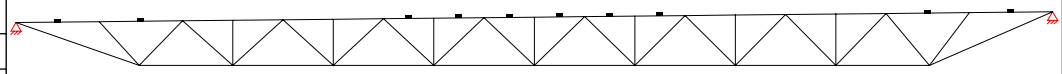
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 44LH13	T08S

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
76-0	75-8	44.00	42.28	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	9-2	9-2
TC Panel	6-3	6-3
First Half	3-2	3-2
First Diag.	12-4	12-4
Depth	39.25	48.75



Loads

Uniform Load in TC (plf)	444.00	Live Load (plf)	246.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
44.00	88.00	16,798.00	16,798.00	4,199.50	90,189.65	90,316.70

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	43,136.92	0.00	0.00	45,667.68	0.00	114.34	0-2
V1S	0.00	40,692.59	0.00	0.00	0.00	4,074.84	51.89	6-3
W3	0.00	40,692.59	52,674.57	0.00	0.00	17,189.19	54.50	9-2
W4	0.00	63,845.48	52,674.57	0.00	14,935.13	0.00	58.84	12-4
W5	0.00	63,845.48	72,962.21	0.00	0.00	12,324.17	59.46	16-0
W6	0.00	80,109.09	72,962.21	0.00	9,651.76	0.00	59.46	19-8
W7	0.00	80,109.09	85,336.13	0.00	0.00	7,142.95	60.08	23-4
W8	0.00	88,724.70	85,336.13	0.00	6,167.64	0.00	60.08	27-0
W9	0.00	88,724.70	90,316.70	0.00	0.00	6,095.51	60.71	30-8
W10	0.00	90,189.65	90,316.70	0.00	0.00	6,095.51	60.71	34-4
W10	0.00	90,189.65	88,379.63	0.00	6,027.18	0.00	61.34	38-0
W9	0.00	84,959.20	88,379.63	0.00	0.00	6,027.18	61.34	41-8
W8	0.00	84,959.20	79,960.66	0.00	7,034.97	0.00	61.98	45-4
W7	0.00	73,450.72	79,960.66	0.00	0.00	9,176.19	61.98	49-0
W6	0.00	73,450.72	65,459.71	0.00	11,369.18	0.00	62.63	52-8
W5	0.00	56,047.60	65,459.71	0.00	0.00	13,402.04	62.63	56-4
W4	0.00	56,047.60	45,244.45	0.00	15,534.39	0.00	63.29	60-0
W3	0.00	34,300.05	45,244.45	0.00	0.00	17,074.24	59.27	63-8
V1S	0.00	34,300.05	0.00	0.00	0.00	3,865.08	58.00	69-9
W2	0.00	36,360.39	0.00	0.00	39,653.55	0.00	117.79	66-10

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	2,078.96	45.03

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 44LH13	T08S

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	1.7747	0.9218	0.5892	1.6470	0.8649	1.5078	1.0000	37 = 3 x 3 x .312
BC	1.6070	0.9260	0.5907	1.6401	0.8536	1.3780	1.0000	35 = 3 x 3 x .281

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
0.75	50,000.00	30,000.00	3,018.23	390.42	390.42	23-4	32-9 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	73.00	73.00	44.00	73.00	73.00
Bending Load	444.00	444.00	444.00	444.00	444.00
Axial Load	43,136.92	40,692.59	90,189.65	34,300.05	36,360.39
fa	12,153.60	11,464.92	25,410.46	9,663.86	10,244.35
Maximum K L/r	79.20	79.20	37.34	79.20	79.20
Fa	18,964.04	18,964.04	27,092.15	18,964.04	18,964.04
F'e	23,806.05	23,806.05	116,494.42	23,806.05	23,806.05
Cm	0.8468	0.8555	0.9127	0.8782	0.8709
Panel Point Moment	21881.16	21885.70	5969.98	21885.70	21881.16
Mid Panel Moment	14922.71	8476.71	2984.99	8476.71	14922.71
Panel Point fb	15492.57	15495.78	4226.94	15495.78	15492.57
Mid Panel fb	4279.77	2431.09	856.08	2431.09	4279.77
Fillers	1	1	6	1	1
Panel Point Stress	27,646.17	26,960.70	29,637.40	25,159.64	25,736.92
Mid Panel Stress	0.8877	0.7383	0.9712	0.6294	0.7583

Gap Between Chords:	1.00
Min Weld Len 2X:	0.9718
Max Load Fillers TC:	92,937.15
Max Load no Fillers TC:	81,879.08
TC OAL/Ryy:	551.3192
BC Stress:	28,100.35
BC L/Rz:	148.9779
TC Shear Stress:	9,884.69
BC Shear Stress:	10,959.23

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	45,667.68	46,678.50	0.00	11,069.36	16.4 x 0.188	2	26 = 2 x 2 x .205
W3	0.00	29,062.50	17,189.19	18,203.27	9.3 x 0.125	2	20 = 2 x 2 x .125
W4	14,935.13	15,780.93	0.00	3,500.62	5.4 x 0.187	1	1K = 1 1/2 x 1 1/2 x .187
W5	0.00	26,619.84	12,324.17	12,642.44	5.3 x 0.156	2	1J = 1 1/2 x 1 1/2 x .156
W6	9,651.76	10,781.25	0.00	2,387.78	5.2 x 0.125	1	1E = 1 1/2 x 1 1/2 x .125
W7	0.00	18,762.93	7,142.95	7,224.93	3.0 x 0.163	1	23 = 2 x 2 x .163
W8	6,167.64	6,183.57	0.00	588.45	3.8 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	16,546.53	6,095.51	6,247.45	2.9 x 0.143	1	21 = 2 x 2 x .143
W10	0.00	16,546.53	6,095.51	6,247.45	2.9 x 0.143	1	21 = 2 x 2 x .143
W10	6,027.18	6,183.57	0.00	564.47	3.7 x 0.109	1	10 = 1 x 1 x .109
W9	0.00	16,546.53	6,027.18	6,134.63	2.8 x 0.143	1	21 = 2 x 2 x .143
W8	7,034.97	7,818.57	0.00	1,104.09	4.3 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109
W7	0.00	26,225.28	9,176.19	9,351.31	3.3 x 0.188	1	28 = 2 x 2 x .232
W6	11,369.18	11,848.68	0.00	2,353.56	5.5 x 0.138	1	1G = 1 1/2 x 1 1/2 x .138
W5	0.00	29,062.50	13,402.04	16,605.48	7.2 x 0.125	2	20 = 2 x 2 x .125
W4	15,534.39	15,780.93	0.00	3,026.38	5.6 x 0.187	1	1K = 1 1/2 x 1 1/2 x .187
W3	0.00	29,062.50	17,074.24	17,274.68	9.2 x 0.125	2	20 = 2 x 2 x .125
W2	39,653.55	40,381.44	0.00	9,091.38	15.2 x 0.176	2	24 = 2 x 2 x .176
V1	0.00	14,531.25	4,074.84	6,756.16	2.2 x 0.125	1	20 = 2 x 2 x .125
V2	0.00	7,818.57	2,078.96	2,714.32	2.0 x 0.109	1	15 = 1 1/4 x 1 1/4 x .109

STRESS ANALYSIS - PAGE 1

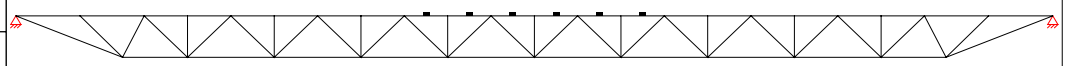
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 48LH17	T09

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
96-0	95-8	48.00	45.72	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	10-0	10-0
TC Panel	6-1	6-1
First Half	2-0	2-0
First Diag.	12-0	12-0
Depth	48.00	48.00



Loads

Uniform Load in TC (plf)	515.00	Live Load (plf)	245.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
48.00	96.00	24,634.17	24,634.16	6,158.54	154,625.69	153,544.39

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	59,642.46	0.00	0.00	63,963.46	0.00	126.55	0-2
V1S	0.00	56,510.30	0.00	0.00	0.00	5,142.93	65.57	6-1
W3	0.00	56,510.30	67,041.58	0.00	0.00	22,659.51	51.64	10-0
W4	0.00	85,423.41	67,041.58	0.00	25,386.86	0.00	66.29	12-0
W5	0.00	85,423.41	101,642.70	0.00	0.00	22,400.17	66.29	16-0
W6	0.00	115,699.41	101,642.70	0.00	19,413.48	0.00	66.29	20-0
W7	0.00	115,699.41	127,593.56	0.00	0.00	16,426.79	66.29	24-0
W8	0.00	137,325.11	127,593.56	0.00	13,440.10	0.00	66.29	28-0
W9	0.00	137,325.11	144,894.14	0.00	0.00	10,453.41	66.29	32-0
W10	0.00	150,300.53	144,894.14	0.00	8,928.96	0.00	66.29	36-0
W11	0.00	150,300.53	153,544.39	0.00	0.00	8,928.96	66.29	40-0
W12	0.00	154,625.69	153,544.39	0.00	8,928.96	0.00	66.29	44-0

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	2,833.13	45.72

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 48LH17	T09

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	2.8594	1.2346	0.7876	2.0514	1.1383	4.3586	1.0000	42 = 4 x 4 x .375
BC	2.8594	1.2346	0.7876	2.0514	1.1383	4.3586	1.0000	42 = 4 x 4 x .375

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
0.75	50,000.00	30,000.00	5,986.60	383.17	383.17	29-0 3/4	41-0 3/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	71.00	71.00	48.00	71.00	71.00
Bending Load	515.00	515.00	515.00	515.00	515.00
Axial Load	59,642.46	56,510.30	154,625.69	56,510.30	59,642.46
fa	10,429.28	9,881.58	27,038.37	9,881.58	10,429.28
Maximum K L/r	90.15	90.15	30.47	90.15	90.15
Fa	16,559.58	16,559.58	28,030.65	16,559.58	16,559.58
F'e	45,155.71	45,155.71	175,640.39	45,155.71	45,155.71
Cm	0.9307	0.9343	0.9384	0.9343	0.9307
Panel Point Moment	23898.04	23902.19	8240.00	23902.19	23898.04
Mid Panel Moment	16413.78	9107.56	4120.00	9107.56	16413.78
Panel Point fb	7845.20	7846.56	2705.01	7846.56	7845.20
Mid Panel fb	2143.35	1189.29	538.00	1189.29	2143.35
Fillers	0	0	6	0	0
Panel Point Stress	18,274.48	17,728.15	29,743.38	17,728.15	18,274.48
Mid Panel Stress	0.7163	0.6441	0.9845	0.6441	0.7163

Gap Between Chords:	1.00
Min Weld Len 2X:	1.6661
Max Load Fillers TC:	157,105.75
Max Load no Fillers TC:	144,349.67
TC OAL/Ryy:	559.6061
BC Stress:	26,849.29
BC L/Rz:	121.8937
TC Shear Stress:	9,302.53
BC Shear Stress:	9,302.53

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	63,963.46	65,826.00	0.00	20,017.43	23.0 x 0.188	2	2E = 2 1/2 x 2 1/2 x .230
W3	0.00	37,525.86	22,659.51	26,542.47	9.4 x 0.163	2	23 = 2 x 2 x .163
W4	25,386.86	26,225.28	0.00	8,175.14	9.1 x 0.188	1	28 = 2 x 2 x .232
W5	0.00	40,381.44	22,400.17	23,866.38	8.6 x 0.176	2	24 = 2 x 2 x .176
W6	19,413.48	20,190.72	0.00	6,378.19	7.4 x 0.176	1	24 = 2 x 2 x .176
W7	0.00	33,093.06	16,426.79	18,774.46	7.7 x 0.143	2	21 = 2 x 2 x .143
W8	13,440.10	14,531.25	0.00	4,663.94	7.2 x 0.125	1	20 = 2 x 2 x .125
W9	0.00	26,619.84	10,453.41	10,549.10	4.5 x 0.156	2	1J = 1 1/2 x 1 1/2 x .156
W10	8,928.96	9,453.57	0.00	1,695.24	5.5 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
W11	0.00	23,697.36	8,928.96	9,440.08	4.4 x 0.138	2	1G = 1 1/2 x 1 1/2 x .138
W12	8,928.96	9,453.57	0.00	1,695.24	5.5 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109
V1	0.00	16,546.53	5,142.93	5,395.55	2.4 x 0.143	1	21 = 2 x 2 x .143
V2	0.00	9,453.57	2,833.13	3,544.14	2.0 x 0.109	1	1C = 1 1/2 x 1 1/2 x .109

* Symmetrical Joist

STRESS ANALYSIS - PAGE 1

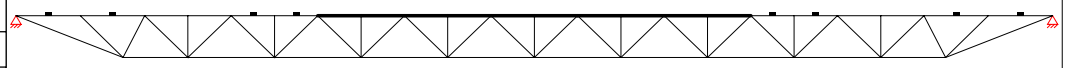
Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 72DLH19	T10

Geometry

Base Length:	Working Length:	Joist Depth:	Efective Depth:	BC Panel Length:	Shape:
144-0	143-8	72.00	69.26	3 @ 8-9	Parallel Chords

Variable	Left End	Right End
BC Panel	15-0	15-0
TC Panel	9-1	9-1
First Half	3-0	3-0
First Diag.	18-0	18-0
Depth	72.00	72.00



Loads

Uniform Load in TC (plf)	497.00	Live Load (plf)	236.00

Stress Analysis Summary

Int. Panel TC:	Max Panel BC:	Reaction LE:	Reaction RE:	Minimum Shear:	Max TC Comp.:	Max BC Tension
72.00	144.00	35,701.17	35,701.17	8,925.29	222,158.33	220,608.41

Member	TC Tension	TC Compresion	BC Tension	BC Compresion	Web Tension	Web Comp.	Web Length	PP Dist.
W2	0.00	86,055.41	0.00	0.00	92,340.70	0.00	191.00	0-2
V1S	0.00	81,512.65	0.00	0.00	0.00	7,457.10	99.19	9-1
W3	0.00	81,512.65	96,613.73	0.00	0.00	32,743.95	78.06	15-0
W4	0.00	122,962.61	96,613.73	0.00	36,561.37	0.00	99.91	18-0
W5	0.00	122,962.61	146,211.61	0.00	0.00	32,260.03	99.91	24-0
W6	0.00	166,360.77	146,211.61	0.00	27,958.69	0.00	99.91	30-0
W7	0.00	166,360.77	183,410.03	0.00	0.00	23,657.36	99.91	36-0
W8	0.00	197,359.44	183,410.03	0.00	19,356.02	0.00	99.91	42-0
W9	0.00	197,359.44	208,208.95	0.00	0.00	15,054.68	99.91	48-0
W10	0.00	215,958.61	208,208.95	0.00	12,874.14	0.00	99.91	54-0
W11	0.00	215,958.61	220,608.41	0.00	0.00	12,874.14	99.91	60-0
W12	0.00	222,158.33	220,608.41	0.00	12,874.14	0.00	99.91	66-0

* Symmetrical Joist

Standard Verticals

Member	Position	Max Tension	Max Comp.	Length
V2	Interior	0.00	4,092.79	69.26

STRESS ANALYSIS - PAGE 2

Job Number:	Job Name:	Date Run:
00-0002	ASD - SJI SUBMITTAL	10/16/2006

Location:	Joist Description:	Mark:
JUAREZ,	Girder Load @ Diag 72DLH19	T10

Chord Properties

Chord	Area	Rx	Rz	Ryy	Y	Ix	Q	Material
TC	5.7500	1.2996	1.2996	1.6865	1.5543	9.7122	1.0000	P2 = 4 x 0.500 w 4 PL
BC	3.7500	1.2178	0.7823	2.0777	1.1833	5.5615	1.0000	46 = 4 x 4 x .500

Axial and Bending Analysis

K:	Fy:	Fb:	Mom of Inertia:	LL 240:	LL 240:	Max Bridg TC:	Max Bridg BC:
0.75	50,000.00	30,000.00	21,792.35	411.84	411.84	23-10 3/4	41-6 5/8

Top Chord Check	End Panel LE	First Panel LE	Interior Panel	First Panel RE	End Panel RE
Length	107.00	107.00	72.00	107.00	107.00
Bending Load	497.00	497.00	497.00	497.00	497.00
Axial Load	86,055.42	81,512.66	222,158.33	81,512.66	86,055.42
fa	8,290.50	7,852.86	21,402.54	7,852.86	8,290.50
Maximum K L/r	82.33	82.33	41.55	82.33	82.33
Fa	18,276.01	18,276.01	26,442.39	18,276.01	18,276.01
F'e	22,030.92	22,030.92	86,499.31	22,030.92	22,030.92
Cm	0.8871	0.8931	0.9010	0.8931	0.8871
Panel Point Moment	52391.89	52401.09	17892.00	52401.09	52391.89
Mid Panel Moment	35970.86	19983.73	8946.00	19983.73	35970.86
Panel Point fb	6596.48	6597.63	2252.72	6597.63	6596.48
Mid Panel fb	2878.41	1599.11	715.86	1599.11	2878.41
Fillers	1	1	14	1	1
Panel Point Stress	14,886.98	14,450.49	23,655.25	14,450.49	14,886.98
Mid Panel Stress	0.5901	0.5037	0.8380	0.5037	0.5901

Gap Between Chords:	1.00
Min Weld Len 2X:	2.3937
Max Load Fillers TC:	266,265.91
Max Load no Fillers TC:	266,265.91
TC OAL/Ryy:	1,022.2497
BC Stress:	29,414.46
BC L/Rz:	184.0800
TC Shear Stress:	9,169.44
BC Shear Stress:	10,148.54

Web Design

Member	Web Tension	Allow Tension	Web Comp	Allow Comp	Weld	Qty	Material
W2	92,340.70	96,422.34	0.00	18,518.96	22.1 x 0.281	2	35 = 3 x 3 x .281
W3	0.00	60,903.36	32,743.95	37,846.15	11.8 x 0.188	2	2C = 2 1/2 x 2 1/2 x .212
W4	36,561.37	37,525.86	0.00	11,787.13	15.1 x 0.163	2	23 = 2 x 2 x .163
W5	0.00	71,250.00	32,260.03	33,475.11	11.6 x 0.188	2	2F = 2 1/2 x 2 1/2 x .250
W6	27,958.69	28,125.00	0.00	3,847.37	10.0 x 0.188	1	29 = 2 x 2 x .250
W7	0.00	54,001.86	23,657.36	25,014.98	8.5 x 0.187	2	2A = 2 1/2 x 2 1/2 x .187
W8	19,356.02	21,562.50	0.00	3,805.69	10.4 x 0.125	2	1E = 1 1/2 x 1 1/2 x .125
W9	0.00	52,450.56	15,054.68	16,197.35	5.4 x 0.188	2	28 = 2 x 2 x .232
W10	12,874.14	15,637.14	0.00	1,912.38	8.0 x 0.109	2	15 = 1 1/4 x 1 1/4 x .109
W11	0.00	42,781.86	12,874.14	13,348.68	4.6 x 0.187	2	25 = 2 x 2 x .187
W12	12,874.14	15,637.14	0.00	1,912.38	8.0 x 0.109	2	15 = 1 1/4 x 1 1/4 x .109
V1	0.00	29,062.50	7,457.10	9,374.93	4.0 x 0.125	2	20 = 2 x 2 x .125
V2	0.00	17,812.50	4,092.79	4,502.27	2.2 x 0.125	2	18 = 1 1/4 x 1 1/4 x .125

* Symmetrical Joist